

The Learning Transfer System Inventory and the Professional Development of New Zealand Physical Education Teachers

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Abstract

The current study is an examination of a professional development (PD) programme for New Zealand secondary school physical education teachers. Eight teachers participated in an extensive PD programme to prepare them to teach the Teaching Personal and Social Responsibility model (TPSR) in their physical education programmes. As part of this PD, the Learning Transfer System Inventory (LTSI) was administered during the initial stages of the programme. The information generated by this process was then used in helping design the ongoing professional development programme.

This study has three objectives: 1) to identify the factors that the teachers felt were the catalysts and barriers towards their successful implementation of the TPSR model into their teaching; 2) evaluate the degree to which the catalysts could be supported and barriers minimized within the reality of their teaching practice and to; 3) examine how successful teachers were in implementing the TPSR into their teaching.

Theoretical Framework

This project is situated within the Transfer of Learning (TOL) and Social and Emotional Learning (SEL) theoretical frameworks. In general “TOL occurs when prior-learned knowledge and skills affect the ways in which new knowledge and skills are learned and performed” (Leberman, McDonald & Doyle, 2006, p. 2) It has also been defined as the extent to which knowledge, skills, and abilities learned in work-related training are generalized and maintained on the job (Bates, Holton & Hatala, 2012). Extensive research has identified that this is a complex process and that there are variety of factors which influence the degree to which TOL occurs. The implications of this is that TOL can only be understood and fostered by examining a relatively complete system of influences (Bates, et.al., 2012).

The need to consider a wide and diverse range of factors lead to the development of The Learning Transfer System Inventory (LTSI), an empirically derived self-report inventory designed to identify participant’s perceptions of the catalysts and barriers to TOL in their workplace (Holton, Bates, & Ruona, 2000). The LTSI has undergone extensive exploratory factor analysis and, more recently, confirmatory factor analysis to examine the validity of the sixteen factor structure that has evolved as a central part of the inventory. This recent examination (Bates, et.al., 2012) sampled a wide variety of programmes and participants and:

included data from 14 different language versions of the LTSI collected in 17 different countries. The heterogeneity of these data, together with analytic results argues strongly for the generalizability and stability of the factorial structure of the LTSI. (p. 566)

This project is also aligned with the SEL theoretical framework. There is a current push to broaden the educational agenda by integrating (SEL) competencies into youth programming

(Elias, 1997). The SEL framework posits that social and emotional skills such as managing emotions, setting goals, and building positive relationships are essential for youth success in school, home, and community life (Collaborative for Academic, Social, and Emotional Learning, 2013). In particular, SEL programming focuses on competencies such as self-management, self and social awareness, building positive relationships, and making healthy decisions. The Teaching Personal and Social Responsibility (TPSR) model (Hellison, 2011) is a field-tested instructional model that aligns with best practices for developing SEL competencies. The TPSR model uses sports and physical activity as a vehicle to teach and improve various life skills with the ultimate goal of facilitating the transfer of learning to other areas such as school, community, and home contexts. Specifically, TPSR lessons are designed to purposefully integrate the five major goals of respect, self-control, effort, caring, and leadership, so that students may develop and practice these behaviors in a structured setting that encourages adoption of these and related life skills in other life areas.

1. Setting and Participants

This project involved eight teachers based at two New Zealand secondary public schools. In both schools, four teachers, including the Heads of Department, chose to participate in the project. School A is a small city based school and school B is situated in a small seaside community one hour from a major city.

All eight teachers attended a full day workshop held at school A during the first month of the school year. Following this workshop, ongoing PD in the TPSR model continued in a variety of ways. In addition to the processes detailed in the following sections, the lead researcher visited schools on a weekly basis to offer teachers ongoing support.

2. Methods

This project used a mixed methods approach with an emphasis on qualitative sources of data. Multiple methods and data sources were used including interviews, observations, and teacher self-report instruments. All of the data sources were analysed individually and then triangulated to provide a rich description of the PD programme to address the stated objectives

3. Data Sources

All eight teachers completed a slightly modified version of the Learning Transfer System Inventory at the start and finish of the year. The modifications were completed to align the questions with an educational context and the realities of teaching.

All teachers completed three semi-structured interviews during the year.

A series of observations, based on the triad model developed by Hemphill (**REF**), were completed with each teacher. Each observation involved a teacher being observed by a peer teacher and the lead researcher. Both observers independently completed a Tool for Assessing Responsibility-based Education (TARE) observation form (Wright & Craig, 2011). This systematic observation tool assesses the extent to which a teacher or program leader is using various instruction strategies designed to promote student responsibility and youth development. Following the teaching of the class, all three participants discussed the lesson using the TARE forms as a basis for identifying positives, negatives, and next steps in relation to successfully implementing TPSR.

Teachers completed an eight item teacher self-efficacy instrument on four occasions. This instrument allowed teachers to record their levels of confidence in teaching the specific objectives of the TPSR model.

4. Results

The Learning Transfer Systems Inventory considers sixteen transfer factors to be influential in the degree to which TOL occurs. It also identifies four major constructs into which these sixteen transfer factors contribute [see Table one]. The results of the first LTSI assessment [Table one] showed a range of responses from the teachers. At this initial stage of the PD, teachers were generally positive about their ability to successfully transfer the learning from the PD programme into their classrooms. They believed in the content validity of the TPSR model, the design of the PD and that they would have ample opportunities to implement TPSR into their teaching. They were concerned, however, with their personal capacity to do so with concerns around such aspects as having time and space to think about, to plan, and to implement the model. The transfer environment (school) was seen in a generally positive manner. The personal outcomes-negative and Head of Department sanctions were both presented in the negative [sample: My Head of Department opposes the use of the techniques I learned in training], so the teachers “extremely negative” responses indicated that they did not see either as a potential problem. Interestingly, teachers did see problems with the openness of the group norms in their departments to change [sample: People in my department are open to changing the way they do things]. Teachers also showed a negative expectation about the formal and informal feedback they would receive about their teaching performance [sample: After training I receive feedback from people about how well I am applying what I learned] and positive personal outcomes [sample;]. Teachers showed a positive motivation to implement the TPSR programme and a belief that they were ready and able to do so.

Table 1.

Four Constructs	Transfer factors	Teachers Responses to Factors
Trainees ability to transfer learning	Content validity Transfer design Personal capacity for transfer Opportunity to use	Positive Extremely positive Negative Extremely positive
Transfer Environment	Feedback Peer support Head of Department support Openness to change Personal outcomes – positive Personal outcomes-negative Head of Department sanctions	Negative Positive Positive Extremely negative Negative Extremely negative Extremely negative
Motivation to transfer	Motivation to transfer Transfer effect-performance Performance outcomes	Positive Positive Neutral
Secondary influences	Performance self-efficacy Learner readiness	Positive Neutral

As a result of this assessment, it was decided to attempt to neutralize potential barriers to TOL by addressing the school environment and, specifically, the personal capacity, feedback, and openness to change issues. A peer support system was implemented within each department, whereby teachers worked together by sharing their positive and negative

experiences and giving each other specific feedback. The lead researcher also attended a number of department meetings with the intention of giving teachers the opportunity to share good practices and to reinforce the importance of supporting each other. A specific forum was also established using google docs to allow the sharing of resources and successful practices across the two schools. Concerns by teachers about their personal capacity to implement the TPSR programme were addressed openly and support was offered to help teachers to create the time and space they felt they needed.

To date, the teacher interviews and classroom observations have shown that the teachers have become more confident and competent in their TPSR related teaching. The triangulated data clearly shows that the teachers are progressively becoming more successful at implementing the TPSR model into their teaching. The TARE observations show a steady increase in the number of TPSR specific factors being observed in the classroom. This increase has been observed in all eight teachers. All eight teachers have reported they are making positive progress not only in their targeted classes, but that their increasing confidence in TPSR has led to their introducing the model into their teaching of other classes as well. As one Head of Department stated:

Yeah definitely for my [other] two classes in particular my year 10 class I'm trying to incorporate TPSR into that as well ... My year 12 sport studies class which is a challenging class, I think they'll respond and benefit from TPSR goals and hopefully transferring it out as well in to the wider setting will make them better students. So I'm starting a unit on personal and social responsibility at year 12 as well.

Note: This is an ongoing project which will be completed in November 2014. Data will continue to be collected throughout the remainder of the programme. At the completion of the programme teachers will be asked to complete the LTSI again. It will be interesting at that time to compare the beliefs they held about TOL at the start of the programme with their end of programme assessment of what actually happened. All data collected between now and the end of the programme, including the second LTSI, will be analysed and available to be presented at AERA (2015) if this proposal is accepted.

Scholarly Significance

The LTSI has been used extensively in PD with a wide variety of organisations and participants over many years. Perhaps surprisingly, when consideration is given to the prevalence of PD in education, it has not been used to a great degree in educational PD. The impact of the TLSI in facilitating successful TOL from a PD programme to the reality of teachers practice will therefore be of interest to academics and those involved in the PD of teachers. The results of this research will also be of significance to those working in the area of SEL. Any process that can be seen to help facilitate the TOL from PD to practitioners in this challenging area is of significance to the field. In the specific areas of physical education, the researchers were unable to find any evidence of LTSI being used as part of PD programmes. This research offers an opportunity for those involved with the PD of physical education teachers to consider an additional tool with the potential to make their PD more effective.

References

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