

# RAPAL

Research and Practice in Adult Literacy

Creativity and the Core Curriculum?

Mother and Babies- ESOL

Doing Freedom: Teacher Philosophy into Practice

Forty Ferrero Rocher, four kilograms of  
macaroni and the Tower of Hanoi  
- some thoughts on developing active  
numeracy teaching activities.

Music hath charms.....

Deterrents to Participation in  
Adult Learning Activities  
And Literacy Skills Among Seniors:  
An Exploratory Study

Reviews

Journal

# The Research and Practice in Adult Literacy Network

## Who we are

RaPAL (established 1985) is a national network of learners, teachers, managers and researchers engaged in adult literacy and basic education. Our support is generated by membership subscription only, and we are therefore completely independent in our views. RaPAL is the only national organisation focusing on the role of literacies in adult life.

## What we do.

### We ...

- **campaign** for the rights of adults to have access to the full range of literacies in their lives.
- **critique** current policy and practice where it is based on simplistic notions of literacy as skill.
- **support** the theories of language and learning, which emphasise the importance of social context in literacy acquisition.
- **encourage** collaborative and reflective research between all participants in literacy work and maintain that research and practice are inextricably linked.
- **believe** in democratic practices in adult literacy which can only be achieved if learning, teaching and research remain connected and stay responsive to changing social contexts and practices in society.
- **recognise** that students are central to a learning democracy and their participation in the decision- making processes of practice and research is essential.
- **foster** collaborative participation between all educational sectors including FE, HE, AE, workplace education, community education and prison education.

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We are a friendly group - open to new members and new ideas. Please contact us with any contributions (views, comments, reports and articles) and do not be put off if you are new to the field or if you have not written for a publication before. This Journal is written by and for all students, tutors and researchers who want to ask questions about this field of work. It does not matter if the questions have been asked before. We want to reflect the many voices within adult literacy and numeracy work and to encourage debate. Why not join in?

The RaPAL Journal expresses a variety of views which do not necessarily reflect those of the editorial group.

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# Editorial

Although originally envisaged as an issue concentrating on multimodal literacies, in response to the interesting contribution we received for Section 3, we shifted the focus of this issue to consider the whole breadth of Skills for Life teaching.

In Section 1, Vasiliki Scurfield remembers the issues and benefits of teaching an ESOL class where mothers and babies were both accommodated in the same classroom. In the same section, Margaret Herrington adds to the creativity debate already raised in earlier issues of the journal by describing a course held at Wolverhampton University designed to stimulate ideas around the use of creative practices. As the article and the photos demonstrate, the participants in the course and their learners both found the ideas raised challenging and motivating.

This 'creative' theme is continued in Section 2 where Bonnie Soroke extends the discussion of 'independence' raised by Kate Nonsuch in the previous issue to consider the same provision from a more theoretical standpoint. Following on from this, Alison Gorf's article again considers a creative approach to adult learning but this time in connection with numeracy learning. For a number of years Alison's creative use of food 'resources' has provided a stimulating and enjoyable approach to numeracy teaching for students at Huddersfield University. Completing this section, Sarah Williamson looks creatively at the use of music with respect to adult literacy teaching.

Finally, in Section 3, Yvon Cloutier discusses the effect of a number of variables affecting the decisions of the over 60s concerning participation in adult literacy learning.

For the review section, we have chosen to widen our remit from a concentration on text resources to consider two of the many 'games' resources now available to Skills for Life practitioners. As a result, in addition to Judith Kidder's review of 'Creating Strategic Readers, we have also included two reviews by practitioners of games for numeracy and pre-entry learners.

Throughout the issue, whilst adhering to the laid down guidelines for the structure of RaPAL journals, we feel that we have been successful in encompassing examples from the full span of Skills for Life provision. We hope we have provided something for everyone and selected articles which will stimulate and enhance the conference debates around the issue of creativity.

**Linda Eastwood**  
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*Wakefield Adult &  
Community Education Service*

## **Copy Deadlines for the RaPAL Journals in 2005**

Please send your articles, comments, suggestions etc to the named editors or to Margaret Herrington, the Journal Contact ([mherrington1@aol.com](mailto:mherrington1@aol.com))

### **Autumn/Winter 2005 Themed Edition: Numeracy**

*Copy date August 15<sup>th</sup> 2005 (Editors to be announced)*

Do not be concerned if your chosen piece does not seem to fit with the themes selected. There are spaces within the themed editions for work in progress or general commentary. Be assured that your ideas could also be retained for the next open edition of the journal.

***Note: these dates are final deadlines. Please contact us well beforehand to guarantee consideration for any particular journal.***

## Section 1.

### Creativity and the Core Curriculum?

*Margaret Herrington, Gwynneth Whitehouse, Glennys Davis and Peggy Warren*

*Margaret Herrington tutored this course at the University of Wolverhampton together with Gwynneth Whitehouse, an experienced basic skills and FE College manager, and Alex Larg, an IT and photographic consultant. Glennys Davis and Peggy Warren are post 16 teachers in the West Midlands who attended the course and all course participants and tutors contributed to the sessions on which this article is based*

#### Introduction

In this article we briefly explore the impact of a short level 4 course entitled Creativity and the Core Curriculum which was devised and delivered at the University of Wolverhampton in February 2005. RaPAL had already published several articles about Creativity and the Curriculum in 2003-4 (Eastwood et al. Journal no.52 2003) and this course allowed a further working through of some of those earlier ideas. The rationale for doing so was that 'creativity' is increasingly used as something of a feel-good, unproblematic, wholly good thing for tutors and students in many areas of education. It is sought by some to counter the impact of what can be seen as over prescriptive curricula and by experienced staff as a means of finding a way back to previous learner centred practice. Others see it as a means of developing curriculum process which focuses on the imaginative power of learners, moving beyond concerns about curriculum differentiation and into areas in which students with learning differences might be authors. In this course, we consciously acknowledged this creativity *zeitgeist*, explicitly interrogating the concept in practice and aiming to release the creative power of tutors and students in this field.

The structure of the course comprised four stand-alone but related parts

- using digital stills cameras - two linked sessions
- using video - one full day session
- exploring literacies and visual culture - half a day session
- working on ideas about literacy students as researchers - lengthy half day with lunch

This unusual mix of sessions explored creativity in a number of ways: two sessions provided hands-on experience of the cameras and in general used experiential learning; two focused on more conceptual work though they were highly interactive and involved practical work.

All sessions explored issues of learner and tutor power within the curriculum process either implicitly or explicitly. In this short article we intend to discuss the digital stills sessions in particular which, over a two week period, involved the following through of the active learning on the course to the participants' own student groups with an opportunity for report back to the course and evaluation with peers.

#### What We Did: Using the Digital Camera Day 1.

The session began with a discussion about what participants meant by the term creativity and Bleakley's (2003) classification of ideas about creativity were introduced for comparison: Ordering, Rhythm and Cycle, Originality, Spontaneity, Irrational, Problem Solving, Problem Stating, Inspiration, Serendipity, Resistance to the Uncreative, Withdrawal and Absence. Some of these had not been considered before, especially the resistance to the uncreative. This seemed particularly relevant for those who were anxious about over prescription.

We then provided examples of photographic work done with literacy students in the 1980s for discussion which included

1. Tutor made packs. For example, photopacks of single real life events (What Would You Do? Whitehouse and Herrington Photopack) and themed photos showing doctor /patient communications [with implicit age, gender and race issues] (What's the Problem photopack)
2. Photo packs made by students and tutors working together. For example, a pregnancy pack (photos, drawings and a tape in Vietnamese) made with and for Vietnamese students who were struggling with how to make sense of the NHS approach to pregnancy.

3. Student- created work. For example, sequences of photos capturing work or leisure interests (photos produced by distance learning students in Leicestershire)

The purpose of this was to show that it was possible for practitioners to engage with this work to good effect and, in particular, to illustrate the move from solely tutor prepared work through to jointly prepared packs and then to student led photography. The argument was made that this kind of work lent itself particularly well to students exercising power over curriculum process. The participants had the opportunity to consider how these examples could work with their students.

We then provided a thirty minute input on how to handle a digital camera. Cameras were provided and key issues covered such as: holding the camera steady, image size, memory and space, resolution and the overall controls. The emphasis was on enjoyment and to take advantage of the fact that the digital camera offered a wonderful opportunity to take as many pictures as they wanted, without too much concern about 'the perfect shot'.

The participants then took the cameras out of the session and took a range of pictures on the nearby campus. These were displayed on a whiteboard and reviewed by the whole group. We considered these both as photos and in terms of how they could be used in relation to the Core Curriculum. Participants could easily see the potential of this material for the students who would engage with the cameras directly and also for other students who would use this photographic work as stimulus for their own literacy activity.

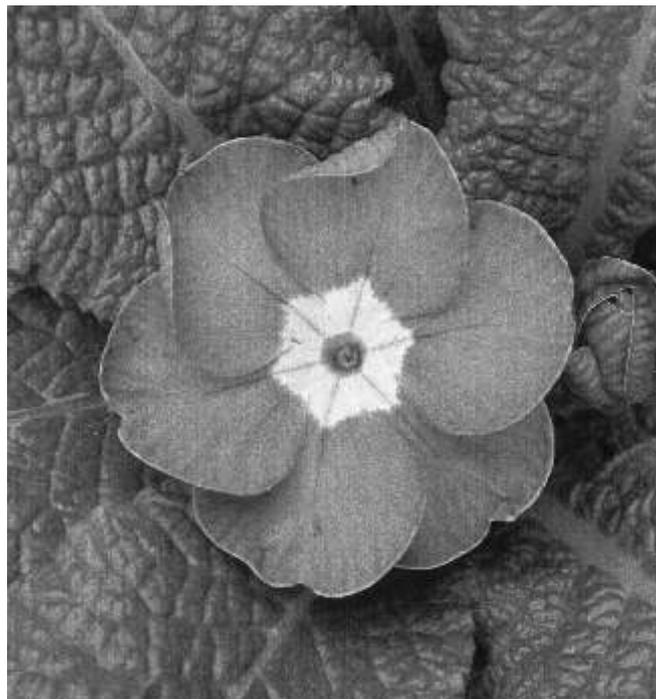
The final session of Day 1 involved planning how participants would work with their students using digital cameras before session 2. In the intervening period, participants were asked to engage their students with cameras in some way and then to review their work in time for the second session.

## Day 2 (one week later)

All participants had engaged with the ideas introduced, bringing in hard copies of the photos they had taken. A few examples will suffice. Robert and Glennys had created opportunities for adult learners to take photos themselves and thus to take up positions of 'author', director, photographer, cast etc.

### Robert's Group

Robert had taken his group of 16-18 year old male trainees out to a farm with no particular objectives other than for the students to make a photographic record of the visit. The students were very keen, taking over readily, talking more than usual and with the shyest members (often the poorest spellers) of the group often getting involved immediately in taking the photos. They talked easily about ideas for better shots and could see the feedback straightaway.



Robert was astonished by the extent of their engagement and could see both the literacy curriculum outcomes and the flowering of many different kinds of learning. Beautiful close up shots of flowers alongside the larger scale photos of tractors with group members proved impressive. Robert felt that the shift in the usual balance of power between students and tutors had produced a wholly beneficial effect on the scope and speed of learning.



### Glennys' Group

Glennys too was impressed with the students' willingness to take responsibility for creating scenes and scripts and describes her work below.

The group had previously looked at some of the problems they could face when considering going into enterprise (three of the group have or are giving serious consideration to setting up a business) including finance, fear of failure, and general lack of confidence. With this in mind, taking still photos of possible scenarios with a financial adviser (bank manager type figure!) seemed a good starting point.

Props were mostly already available in the training room although a phone and additional forms/leaflets were brought in and colleagues at Breathing Space Ltd were 'borrowed' as actors. The basic idea was presented to the learners who then got involved in rearranging props, giving ideas for 'poses'. After two or three stills, the learners took over and even the most reserved learner wanted to take the photos and agreed to be in some of the photos as well. Before long we had learners being enthusiastic actors, directors and photographers! New scenarios were created such as customer services/dealing with complaints (with aggressive responses) and waiting for attention situations. Some photos were also taken of people and objects not related to a role play situation.

Following the photographic session the number of ideas generated for possible scripts was surprising and most encouraging as well as sharing of personal experiences.

In addition to obvious linking in with the National Curriculum via writing text, recording information, asking and responding to questions, discussion, planning and drafting writing etc. the use of a digital camera had opened up all sorts of other possibilities

Other tutors, however, did not have sufficient time to prepare students to take the reins and so started by taking photos themselves. Peggy describes her work below and shows the depth of response which can be generated by the most unlikely of photos.

### Peggy's Group

Unfortunately, I did not have the opportunity to take my group out as I was away on a short break but, armed with a borrowed digital camera, I was determined to take some

photographs, around the themes of holidays and exercise, which I aimed to use in lessons.

I used two photographs in my next lesson with an African Caribbean community group. I introduced the lesson and incorporated travel, modes of transport and holidays. One of the photos was of a fabricated structure in the middle of water and we started with the question: what are islands? The students took over the discussion and shared interesting facts about the islands they emigrated from. They shared memories of travel and schooling. Many of them had had so little schooling and I could understand why - they had to travel miles on foot to get to school. An interesting observation was the pride and confidence that oozed from members of the group as they became teachers - informing the group of facts, correcting each other and sharing different perspectives of their memories. The discussion also tapped in to an internal debate amongst immigrants of the Caribbean. Jamaicans describe members of the other islands as 'small islands' because Jamaica is larger than Barbados, St Kitts, and others. As this group consisted of people from a range of islands, this produced some very interesting and 'safe' banter.

The group appeared to really enjoy the session, much learning was achieved and the students did most of the teaching. I thoroughly enjoyed the session, and I have been informed that I can access a camera to use with students. When I originally informed the students that we would use the camera they were quite apprehensive; they have a lot of respect for other people's property. I have since tried it, and the students were willing to join in, with guidance and support and after observing me make a fool of myself. The photo session was great. Again, lots of laughter, much teambuilding, interaction and students instructing students.

I look forward to using the photos and if they generate as much learning and fun as the photo taking session did, then there is no doubt that I will have a happy group, which has taught and learnt much.

### Marcia's Group

Marcia, a new literacy tutor, had prepared a set of photos of buildings and signs in Walsall. Students were asked to match signs to buildings and even the normally most reserved students joined in. The exercise stimulated a discussion about the history of the buildings and about who could remember what. Students were also asked to locate the buildings on a map of Walsall. The

older students began to teach the 18 year old in the class about the history of Walsall and two discovered that they were related to each other. The photos had triggered memories and allowed the students to reconstruct a narrative about change in their town. The impact of this inspired Marcia to think about further possible uses and also to undertake an assignment for accreditation purposes.



When all the ideas had been discussed, the photographic materials were laid out for all members to add in their ideas for additional uses of these materials.



The final exercise in Day 2 involved further experiential work with cameras. We wanted to give experience of the stages, processes and roles involved in producing photographic sequences, with all members experiencing as many different roles as possible. This

meant that we ended the course with more actively innovative work. Three groups produced sequences: queue jumping, trying to find a loo and teaching someone ICT which we then reviewed as a whole group. Participants could readily appreciate the likely outcomes of such work with their students as well as the ongoing value of having student-made materials in their resources.



## Conclusion

Both of the days were experienced in themselves as great fun as well as releasing a wealth of ideas and materials (participant evaluations). It was clear that experiential learning was vital for this kind of work. Although we provided worked examples, which gave a sense of the possibilities, and crib sheets about the use of the camera, it was the opportunity to handle the camera and to 'play' with ideas which were key to the tutors' confidence in trying them out with their own students.

The extent of the impact on the learners of placing them in key decision making positions had not been fully anticipated by the tutors at the outset. Yet, it certainly appeared that using digital cameras, with something of a free rein, released creativity in both tutors and students because of the fundamental shift it allowed in the student role within the group, both in relation to the tutor and to other students. Tutors had also shown a resistance to the uncreative by ensuring ideas could emerge freely and that students could exercise considerable power in relation to where discussions led. Some of these learning journeys were unpredictable at the outset but the tutors seemed to relish the possibilities this offered.

The significance of students producing their own materials cannot be over-estimated. According

to a survey of current practice in post-16 and adult provision (HMI 1367 Sept 2003)

There is still a shortage of good quality learning materials. Too often, teaching relies on poorly photocopied worksheets, which have little relevance to the learners' needs or interests.

The learners' role as decision makers and creators was seen as unreservedly positive. Tutors used language like 'amazing', 'liberating', 'relevant' and 'exciting' to describe the learners' reactions to making their own materials through photography. All remarked on the positive effect of improving communication.

Further, at a time when level 4 training courses are often criticised for not being sufficiently practical, this example supported the argument for linking training, in part, directly to classroom practice and including a review of such new practice with peers on the course. This should not be taken to mean that theory and critical thinking should be sidestepped in favour of tips for teachers. In theoretical terms we can, for example, see that creativity in several senses, at the same time, were evident here: spontaneity, originality, innovation, problem stating, problem solving, unpredictability and inspiration. Students are capable of these even when their spelling is extremely weak and so it is important to articulate these capabilities clearly. Theoretical frameworks are also essential when interpreting some students' unwillingness to engage with classroom learning: resistance and withdrawal in the face of inappropriate teaching can be seen as a creative act. Creativity in this sense does become problematic for some kinds of teaching.

Finally, there is an interesting theoretical interface here with 'critical literacies'. If using cameras creatively can enhance the exercise of student power in relation to constructing their own personal stories as learners; if it can assist in reframing stories about the relationship between weak literacy skills and educability which have been, and continue to be, foisted upon them; and if it can facilitate criticality about literacy policy, then such work can be seen as having a major function in enriching the curriculum. Although core curriculum outcomes could easily be mapped to the work described here, broader, deeper learning gains were also evident.

## References

Bleakley, A. (2003) *Constructions of Creativity. A paper presented at the SRHE Conference: Innovation and Creativity in Teaching and Learning. University of Stirling*  
Eastwood, L., Gorf, A. & Ormondroyd, C. 'Eve Sitting in the Bath-Creativity in Teaching and Learning'. *RaPAL Journal 52. 2003*

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<sup>1</sup>Funding for the course was provided by CfBT under the Skills for Life Quality Initiative

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## Section 1.

### Mother and Babies- ESOL

*Vasiliki Scurfield*

*Vasiliki Scurfield is currently an ESOL coordinator in Dewsbury College's Skills for Life Department. At the time of this Mother and Baby project she was employed as an ESOL tutor with Wakefield Adult and Community Education Service.*

#### Introduction

In the autumn of 2001 I was asked to teach one session a week on an ESOL mother and baby class which came into being when a member of the Wakefield Metropolitan District Council Asylum Seekers Team identified a cohort of women from Kosovo and Albania, who were almost all single mothers with very young children.

As these women were understandably reluctant to leave their little ones with strangers, they were therefore unable to attend mainstream ESOL classes. So, after some rather creative thinking and some even more creative budgeting, funding was found to provide a minibus that would pick them up from their homes and transfer them to a designated centre for one four hour session per week so that they could bring their children with them.

#### The nitty gritty

On an average day between 11 to 16 women attended with about thirteen children ranging in age from a couple of months to 3 years. Throughout the sessions the mothers retained responsibility for their own children although two crèche workers were present in the room to help occupy the children and take some of the pressure off the mothers.

Unfortunately the only room available and large enough to house us all, was a cooking classroom and this was where we were duly confined. The room was set up so that the tables where the mothers sat were at one end, as far away as possible from a large piece of carpet which constituted the 'crèche'. A variety of toys was provided for younger children and the older ones were encouraged to take part in craft activities that were set out on two child sized desks.

As the session ran from 10 am to 2 pm, we scheduled in a coffee break and a lunch break. Coffee, fruit juice and biscuits were provided but mothers bought their own packed lunches.

#### The learning

I wish I could say that an observer would have found a scene of calm and diligent learning or even slightly hectic learning going on. In reality the noise levels were distracting and the tasks and activities were constantly interrupted.

Mothers would jump up to get children, crèche workers would interrupt to say that nappies needed changing and mums would often do their best to take part with one arm supporting a breast feeding baby. In addition the group was mixed ability with two Pre-entry learners, two E3, and one L1 with the rest scattered across the various permutations of E2 and E1.

As the class ran before the new Skills for Life Initial Assessments, materials and Diagnostic Tests were available, assessment was informal and ongoing. All the learners had individual learning plans and the context in which I taught was negotiated as well. Asked for ideas on what they wanted to learn, all the learners expressed very strong views about what they didn't want. They didn't want worksheets and were frightened by writing and grammar.

So I taught a topic-based syllabus within which I hid the grammar and new topics were negotiated with the learners as the old one ended. By doing this I hoped to build the women's confidence and keep their interest engaged. I kept the writing I asked them to do to a minimum and focused primarily on speaking, using role-plays and building spoken vocabulary.

In this way we encompassed many of the usual topics that ESOL learners find useful, including using public transport, health, and shopping. In addition, the learners requested a lesson on culinary herbs: most dried herbs look similar in their uniform glass jars and the learners were finding it hard to find those they needed to cook with. I brought in books which contained pictures and photographs, as well as sprigs of real herbs I had growing in my garden, (Sage, Rosemary, Oregano, Thyme, Lavender, Lovage) and together they looked through them to identify those they needed and then deciphered and copied down the names.

#### The challenges

Inevitably teaching such a large class at such varying levels proved very difficult and there can be no doubt that, in the beginning, the quality of teaching I gave the more advanced learners was occasionally sacrificed for the benefit of the majority. At one point a student who was doing her C&G 9284 joined the class for teaching experience. She was supposed to stay only long

enough to complete her placement but, thankfully, not only did she never leave, but she also proved to be invaluable with the Pre-entry learners and is now a qualified and committed ESOL tutor herself.

Inevitably too with a learner group of this nature, attendance was often sporadic and learners sometimes disappeared without notice. For a brief period my class was joined by a group of five Iranian women who left after four sessions and never came back. I spent a year agonizing over what I had done to lose them only learning later that some of the children had caught lice and the mothers had been so embarrassed about this they never returned.

The close proximity of mothers and children also presented other challenges. Often the crèche workers would tell a child not to do something such as drawing on the units and the mothers would undermine them by picking up the child and cuddling it. Mothers would abandon tasks half done to rush to a child who had just had their hair pulled by another, to change a nappy or to pick up and comfort someone who had just fallen over. In a workshop based class this might have been less of a problem but it wreaked havoc with role-plays.

In addition the mothers themselves took every opportunity to speak in their native language and it was a constant battle to make sure this didn't happen. Many of them came mostly to socialize and hear their mother tongue in a strange country rather than learn but, despite all this, learning did take place. One of the learners achieved accreditation (Pitman Intermediate); one is now studying hairdressing at a Leeds college; another has finished a bookkeeping courses at Wakefield college and is moving on to study accounting. Others are attending discrete ESOL classes.

### **Evaluation**

Almost inevitably, the class had a limited life span. Babies grow up quickly and go to playgroup and then school and funding dries up. Tutors and other staff move on. However, although I look back on this class as baptism by fire, if I was asked to do the same again I would probably say yes (Ithough my first instinct would be to run away screaming!). It was a noisy, challenging, frustrating introduction to ESOL, but it was also inspiring. I developed considerably as a teacher, becoming more flexible and more aware of learner needs. I learnt to think on my feet and make resources out of nothing. This class and the challenges we faced together not

only introduced me to the field of ESOL but led me to make it my chosen career.

In addition, the mothers benefited in ways other than merely learning the language. They grew in confidence and ability and for some it was the only opportunity they had to socialize outside their homes. Isolated from their extended families, they were raising children without the support they would usually have relied on in their own countries. The class enabled them to share issues and problems with each other and a useful informal support network was developed. Lasting friendships were built and, in the end, out of the chaos came some sort of order.

## Section 2.

# Doing Freedom: Teacher Philosophy into Practice

Bonnie Soroke

*Bonnie Soroke is presently in Belfast with the LEIS project (Literacy & Equality in Irish Society), researching and developing creative methods in adult literacy education. She has worked in the field of early childhood education, taught English as a second language, developed zipper sculpturing workshops, worked as a literacy tutor and as a consultant within adult literacy research. Details of the LEIS project can be found at [www.leis.ac.uk](http://www.leis.ac.uk) and Bonnie can be contacted on [www.soroke.com](http://www.soroke.com).*

My interest in finding 'good' adult literacy education where learners experience dignity and respect led me to the Reading and Writing Centre, an efficacious adult learning environment located in a storefront building in downtown Duncan, a small city in western Canada. I met with the students and the two teachers, Kate Nonesuch and Christina Patterson, and secured their approval to conduct my master's thesis research with them. Since I wanted to explore the experiences and perceptions of the students and teachers, I chose ethnographic methods for my research. During 1999-2002, I completed five months of fieldwork that involved weekly two-day visits for participatory observation, interviews with nine students and two teachers and two group talks with students. My data included transcriptions of taped interviews and group talks, daily field notes, personal research journal notes, headnotes, documents from the Reading and Writing Centre (e.g. schedules, minutes of meetings, student writing, posters, curriculum information), artifacts, adult literacy practitioner online discussions, and published writings of Kate Nonesuch.

Based on a sociocultural perspective of literacy and using a framework of power, my ethnography explored what a dialogic, learning-centred literacy program looked like from the perspective of the people involved and asked: how are power and authority operating in this place? The purpose of the research was to document the relationship dynamics in a place where teachers and students say they are 'doing freedom' and to analyze the benefits of the Reading and Writing Centre. The study showed how doing freedom within this educational environment means creating and maintaining a community relationship and a facilitative power system through the force of the teachers' philosophy and vision. The aim of this article is to describe and analyze the teachers' philosophy and vision and show how that translates into their practice. I focus on the dialogic instruction within their practice and an in-depth look at how they facilitate student decision-making and choice.

### Teacher Philosophy

The philosophy of the teachers is the backbone of the Centre. Kate and Christina have a political stance on literacy: literacy education is a right; there are social and economic reasons why some students fail in school and others don't; self-confidence, self-awareness and self-esteem are essential to success in a literacy program. They have a vision for the Centre to be learner-run; they envisage the students working in partnership with the funding bodies and actively running all aspects of the Reading and Writing Centre, including hiring teachers.

What guides Kate and Christina's practice is a strong emphasis on increasing learner agency. They work to create an environment that gives students the opportunity to develop autonomy and leadership within their educative process. I argue that their focus on leadership works to equalize relationships amongst teachers and students and contributes to the creation and maintenance of a facilitative power system and community relationship.

The Centre has evolved a facilitative power system in which to effectively and meaningfully teach and learn leadership. The four main components of a facilitative power system are: decentralized decision-making, site-based management, teacher autonomy, and a unique curriculum (Dunlap & Goldman 1990). For the purposes of this article I focus on decision-making and discuss the ways Kate and Christina facilitate student decision-making in their practice.

Leadership is the capacity to use and exercise power. Kate and Christina's focus on leadership, rather than individual empowerment, implies the presence of others and an interdependence that arises through the mutual influence and affect of others. At the Centre, teaching and learning leadership places the process of student empowerment within a context of others, within a community relationship. Through this study I have come to agreement with Linda Briskin (1990) that teaching leadership directly is one way of addressing inequities in students' ability to claim classroom power. Kate and Christina

acknowledge that the learning process includes them as well. As teachers, they are willing to take risks, and to learn along with the students in finding out just what it means to work at being a learner-run centre. During my fieldwork, this meant teachers and students dialoguing and making decisions about the instructional program that include the curriculum content and evaluation. There are two key assumptions underlying the teachers' learner-run vision. One is that all people have the right and the potential for self-development and for the exercise and use of power. The teachers expect students at the Centre to move towards more student agency and self-determination both individually and as a group. The other key assumption is their value and use of the group. In the process of increasing student agency and self-determination, Kate and Christina expect that students will work at relating and communicating with one another and will eventually participate in group activities and classes.

### **Decision Making**

Having choices and making decisions were two prominent themes that emerged from this research. Both teachers and students of the Reading and Writing Centre struggle with the challenges of creating an environment that allows for more equitable exercise of power. For students at the Centre, making decisions is related to seeing oneself as a decision-maker, as a person with the right to make decisions and as capable of making decisions. The teachers work with students to increase awareness about informed decision-making. During both individual and group interactions with students, the teachers constantly direct students' attention to the fact that they have choices and are making decisions. Christina even jokingly engaged a student in a brief conversation about deciding not to decide. Many times during interviews, group talks and conversations, the students brought up the importance of the availability of choices at the Centre and contrasted having these choices with their previous experiences of schooling. The students' freedom to choose stems from the sophisticated instructional program at the Centre that includes both teacher-instructed group classes and self-directed individual work in two rooms named Inhale Room and Exhale Room respectively. The combination of teacher-centred and learner-centred approaches signifies a **learning**-centred environment (Luttrell 1996) that allows for student choice on an ongoing basis.

But freedom to choose does not ensure making

decisions. Doing freedom is grounded in agency and the capacity for choice. Students do not necessarily see themselves having the rights and responsibilities of choice and decision-making. There may be internalization of the oppressions of low literacy stereotypes. Many students spoke with me about debilitating schooling experiences where they felt insignificant and powerless. Traditional schooling often does not support student agency and can contribute to a learned helplessness. This works to undermine an adult literacy student's confidence and self-esteem and to cloud the awareness of self as a person with rights and responsibilities.

Shor and Freire (1987) talk about the ongoing tension that exists between students' prior experiences of authoritarian education and a new liberatory class which proposes dialogue and self-discipline. Shifting away from authority-dependent relations requires a different use of teacher power and authority. During this study I constantly grappled with what a different use of power actually looks like and questioned how educators can work with and transform teacher authority.

For some students at the Centre, the personal agency involved in choice and decision-making was something that took time and repeated experiences to become accustomed to and to know how to use. Students spoke with me about difficulties in getting started on their academic work at the Centre, in choosing what to do and in making a plan for themselves. It is not a given that students see themselves as having choices and as making decisions. As an adult literacy student within an educational institution, having choices and making decisions can be unfamiliar and very risky, and requires both an awareness of choices and a certain level of self-respect. At the Centre the whole environment works to build students' awareness and confidence through their physical set up, their schedule, weekly meetings and the day-to-day interactions.

### **Diffusion Of Decision-Making**

My observations and analysis of the day-to-day interactions indicate that decision-making at the Centre is not always an explicit and conscious process. Decisions are not always concentrated within one person or a group taking action from a range of choices. Decision-making is diffused throughout the interactions and within the diverse role taking of teachers and students. One example of diffusion is the reciprocal talk that Kate and Christina employ, a term I borrow from Kathleen Hurty (1995), who gives a

reconceptualization of power through women's experiences and theories of power. In her case study research with seventeen women principals, she argues that women's power as school leaders is characterized by their attention to human interrelatedness, which involves collaboration. The power focus is on interdependence, participation and reciprocity. She outlines elements of a power *with* mode that include reciprocal talk, defined as a style of communication that 'implies turn-taking, both answering and asking questions, listening and responding to what is said' (389). She sees reciprocal talk as a resource of power, naming it a form of decision-making used informally throughout the day and also a useful strategy in building trust.

Kate and Christina's style of leadership and instruction involves talking with students in informal ways, being available to students, being willing to talk things over and honour confidentiality. Their reciprocal talk is speaking and listening to get a feel for the perspective of students and verifying understanding. They engage the students in both group and individual discussions to check out ideas or plans, since the students are the ones most likely to be affected. During my fieldwork, the surprises that occurred for me often were connected with Kate's consistent responses and behaviour towards students through ongoing, constant communication with them on daily maintenance issues, as well as on larger issues. She sees the Centre as the students' place and she enacts their learner-run goal on a daily basis, through her day-to-day interactions and decisions about sharing knowledge.

Diffusion of decision-making also occurs through the fluidity of roles at the Centre. Both teachers and students assume responsibility for the myriad of tasks and responsibilities that include the physical upkeep of the rooms and materials, and organizing and hosting events at the Centre. They claim that 'we are all teachers here' and that all members of the Centre have opportunity to assume tasks elsewhere attributed to only teachers, such as initiating ideas for courses offered at the Centre and making the decisions about curriculum content. There are ongoing opportunities for students to assume responsibility in their academic work, their work for the Centre and within interpersonal relationships. The experienced students decide what to tell new students, they decide what to say and how to help one another.

### Teachers Struggle With Power & Leadership

There are struggles and tensions when those in a powerful teacher role work to equalize power relationships. During an interview, Christina used the term 'powering up' to describe her own behavior that she was working to change. Powering up means to take over, to take full responsibility, and to assume the right of telling others what to do. This is a useful phrase to describe the usual tendency within a hierarchical organization and within the traditional teacher role with its accompanying privilege of power, where those on top are expected to power up, to power over. Christina was in a process of questioning and reflecting upon where her role of decision-maker began and ended. She shared with me her reflections on one of their weekly Monday meetings with students, when she was dissatisfied with her behavior towards a student. In reflection, she saw that she was not clear within herself what decisions she had already made and what she was asking of the students. Christina said she felt she needed to learn how to use power differently. So she decided to make a rule for herself

When I take things into the Monday morning meeting now I try to make sure (that I'm clear on what) I'm bringing in. That if I've got decisions that I've made, that I want to hold, I see them. I own them. I say, 'this is what I think, this is what I think we should do', and I ask the asking part. But it took me learning, took awhile to see that  
(Christina Interview 05/04/01).

Jenny Horsman (2001), practitioner and researcher, has discussed similar struggles of being explicit about control within learner leadership activities. Like Christina, she found she needed 'to be much clearer about the control I intended to keep' and to make clearly visible her own role and sense of responsibility 'so the group could explore together what was open to negotiation by the group' (95).

### Dialogic Instruction

Dialogic instruction at the Reading and Writing Centre is a working philosophy of the teachers as well as one of their instructional techniques, where they create openings for a mutual learning process that requires constant negotiation and dialogue. I use the term dialogic education in a similar way that critical and liberatory educators use it to distinguish from traditional education that posits the teacher as expert and giver of knowledge (Freire 1997). Dialogic inquiry or dialogic instruction is about

teachers and students engaged in dialogue and creating knowledge together, ensuring that issues of learners' lives have a chance of becoming part of the educative agenda (Rodriguez 2001). Dialogic instruction is integral to a learning-centred environment because learners need to have opportunity to discover that personal and individual problems can better be understood as products of larger social inequities (Luttrell 1996).

Shor and Freire (1987) speak of dialogic instruction as inquiry or 'situated study' (50), meaning the curriculum is situated inside student thought, language and experience. This situated pedagogy involves a participatory process where students and teachers discuss, think critically and co-develop the sessions, as at the Reading and Writing Centre. Often students and teachers need to first unlearn, to desocialize from education experiences within traditional structures that foster learned passivity within the student and place teachers in the position of the expert with knowledge to transmit. Shor and Freire suggest that desocialization involves the construction of peer-relations instead of authority-dependent relations. The efficacy of the Reading and Writing Centre is their desocialization process that works to create and support a community relationship among students through group activities and group decision-making.

Thus dialogic inquiry also becomes a way of instilling trust with and amongst the students at the Centre, where they learn that their opinions, experiences and input are valued and important. Dialogic instruction takes place when students first start at the Centre, when teachers work to engage students in dialogue about both the context and the process of their learning. During individual orientations with new students, Kate and Christina ask questions and listen attentively to the answers so that together they can make decisions about the student's program of study.

### **Getting Out of the Way**

The capacity to use and exercise power at the Centre means there needs to be a place and opportunity to do so. Kate and Christina practice 'getting out of the way', a term they use to describe their practice of making room for students to exercise power and leadership within the Centre. Much of the literature about adult education and adult literacy talks about 'sharing power'. My analysis of the Centre's power system suggests that there is more happening at the Centre than simply sharing power.

To understand how getting out of the way differs from sharing power, it is important to recognize that power, the capacity or ability to act effectively, is relational. Power is not a thing to have or to share, but rather is exercised, is played out in relationships. To share power implies there is some thing to be shared, as with a bag of candy that is passed around. Teachers sharing power implies that they share a certain amount of their power with each student; that they use their authority to dole out power to the students. But at the Reading and Writing Centre, something different happens. People don't have power, but rather they exercise it. The teachers at the Centre work with power as a verb. The sharing of power does not come from the teacher to the subordinates, rather, the teacher/authority acts in a facilitative role to enable the enactment of power by all people within the setting.

When power is given the status and action of a verb rather than only a noun, then 'sharing power' takes on a different meaning. Sharing power is sharing an action, not some thing someone has. Thus sharing power is really the sharing of the doing of power. Teachers at the Centre share the doing of power, such as decisions about curriculum and about the budget. Students make decisions how money is spent; they share the doing of an action. Similarly students share the doing of actions usually ascribed to teachers or to authority, such as making decisions about courses to be run or policy changes at the Centre.

Kate and Christina use their position to create an environment that allows for the facilitation of power, making it easier for others to enact power. They are conscious of 'powering up' and also of 'powering down'. Kate and Christina get out of the way so students can get in the way. The 'way' is comprised of the actions usually attributed to teachers or persons with authority and not usually to adult literacy students. When the teachers get out of the way, there is a way for the students to get into - roles for students to assume and a concrete place and means to get in the way to exercise power.

The idea of sharing power in education is usually limited to inter-relational dynamics, whereas getting out of the way involves the creation of structures that can better facilitate the exercise of student power. The structures, at this time of the Centre's evolution, consist of the autonomy of their storefront location and access to resources, their regular Monday morning meetings for group decision-making, and the

formalized student roles (see full thesis for description). These structural factors contribute to a shift in power relations, rather than simply a sharing of power within relationships.

Emphasizing the importance of leadership keeps teachers mindful of their own leadership of being able to teach leadership rather than assuming it and to keep practising getting out of the way. The teachers struggle with knowing how to help create and maintain learner leadership. They are aware of the differences between teachers and students, differences in background, experience and values. Teachers remain the final authority through their position within the educative system. Kate's comment to me that 'students put teachers in a place and expect them to be there', points out that the teacher's authoritative position can be maintained by students as well as by the educational institution.

When students and teachers are sharing the work of running the Centre, the teachers find they need to maintain their authority and awareness of the bigger picture. Christina explains

So you can't just give a job away when a person actually doesn't know how to do the job, so right from the very beginning and all the way along we are trying to give something to people, but we have to see - do they know how to do it? If they don't know how to do it, what do they need to learn? Once they do learn it how much do you watch to see? Are they actually doing it in a healthy way, and [pause] how much is it different from how I would do it and does that matter? (Christina Interview 05/14/01)

The difference in how a teacher would do it in relation to the student is an issue related to power dynamics. The teachers have different educational and socioeconomic levels, and more access to a wide range of life experiences that makes for differences in perceptions and values. Both Christina and Kate talked about their struggles in dealing with those differences in their teaching. They constantly questioned and reflected upon the boundaries of their responsibilities, what they based their decisions upon and how to own and use their power and influence responsibly. Kate wrote about these struggles during an online conference (2001) with adult literacy practitioners

The power to be correct. The power to get things done the way I think is right. The power

to put on a good show in front of the public. Those are hard ones to give up.

The teachers at the Centre recognize that they can never be on the same level as the students. The status and privilege of the position of teacher exists within the institutional hierarchies and practices. Christina and Kate work to change the practices by exercising more collaborative kinds of leadership with students and with one another. In the process of teaching and learning leadership, both teachers and students work at unlearning and letting go. Kate wrote in an online discussion entitled 'Getting Out of the Way'

Sharing power with students is a liberating experience. I can take off the mask that says, 'I know everything, and I'm in charge,' and be much more myself than ever before. I laugh often with genuine delight.  
(03/26/01)

Students participate in the creation of the environment that is the Centre and they participate in the decisions that affect their lives within that environment. Student participation is neither imposed or coerced, but rather, there exists a quality of relationships and respect that makes participation a matter of choice. The Centre's establishment of a facilitative power system and community relationships illustrates a shift from traditional teacher/student relationships towards an equalization of power dynamics. The power system and relationships can be seen as indicators of active engagement within a direct and participatory democracy. The Reading and Writing Centre can serve as a model of education that characterizes democratic participation.

The Reading and Writing Centre shows us that a transformed set of relationships is a joint effort on behalf of the teachers and the students, who work together to create a generative and sustainable environment with a range of choices to accommodate diverse learning needs. Such teacher and student collaborative efforts work well. I heartily agree with Steven, a student research participant who told me 'the way I look at it, they got to have more schools like this'.

*\*Note: in Canada the terms adult literacy education, adult basic education and fundamental education are used interchangeably. The terms students and learners are both used, teachers are also called instructors or practitioners. The term tutor in Canada is used for the one-to-one relationship with a learner and implies volunteer work.*

## REFERENCES

- Briskin, L. (1990). Feminist Pedagogy: Teaching and Learning Liberation. Sociology of Education in Canada: Critical Perspectives on Theory, Research & Practice. L. E. D. MacLennan: 443-478.
- Dunlap, D. M. and P. Goldman (1990). Power as a 'System of Authority' versus Power as a 'System of Facilitation'. Annual Meeting of the American Educational Research Association, Boston, MA, ED 325 943.
- Freire, P. (1976). The Politics of Education: Culture, Power and Liberation. London, Writers and Readers Publishing Cooperative.
- Freire, P. (1997). Pedagogy of the Oppressed. New York, Continuum Publishing Company.
- Goldman, P., D. Dunlap and D. T. Conley (1993). 'Facilitative Power and Nonstandardized Solutions to School Site Restructuring.' Educational Administration Quarterly 29(1): 69-92.
- Horsman, J. (2001). 'Why Would They Listen to Me?' Reflections on Learner Leadership Activities. Participatory Practices in Adult Education. B. Burnaby. London, Lawrence Erlbaum Associates, Publishers: 77-102.
- Hurty, K. S. (1995). Women Principals - Leading with Power. Women Leading in Education. P. A. Schmuck. Albany, State University of New York Press: 381-407.
- Luttrell, W. (1996). 'Taking Care of Literacy: One Feminist's Critique.' Educational Policy 10(3): 342-365.
- Rodriguez, C. (2001). Educating for Change: An Instructor's Handbook. Victoria, BC, Centre for Curriculum, Transfer and Technology.
- Shor, I. and P. Freire (1987). A Pedagogy for Liberation: Dialogues on Transforming Education. New York, Bergin & Garvey

## Section 2.

# Forty Ferrero Rocher, four kilograms of macaroni and the Tower of Hanoi - some thoughts on developing active Numeracy teaching activities.

*Alison Gorf*

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The title of this piece stems from being en route to a recent session with some Numeracy teachers on an In-Service course where we were looking at ways of teaching algebra. My teaching resources were all packed into a useful trolley which was rather heavy that evening and I realised that I was carrying the items listed in the title, which was why it weighed so much. The reasons for using these particular resources will be explained a little later.

My personal interest in active forms of numeracy teaching pre-dates my current role as a teacher educator and stems from two influences in the late 1990s. What I have been trying to research and develop over the past few years is in response to difficulties that I faced in my previous role as a Numeracy tutor in the Adult and Community section of Huddersfield Technical College in trying to teach many concepts in Numeracy such as multiplication, fraction operations and the understanding of shape and space problems.

Many of my students were becoming 'stuck' in terms of their progression at the stage where they had to move from four rules of number work to the complex application of those skills to higher order tasks. In terms of Bloom's taxonomy (1956) they had mastered the knowledge about numbers but were not effectively moving on to the comprehension, in that they could not easily transfer that knowledge to a new context and thus could not go on to the applying, analysing and synthesising needed to cope with the higher levels of assessment.

Mathematics teaching and in particular the difficulties that many people have with maths has long been a subject of study by members of the teaching profession and educational psychologists. Maths is a subject that invokes emotions like no other in education as (Ahmed 1987, p.22) succinctly states,

Maths is a subject closely related to failure, and is also socially acceptable to be bad at mathematics. I think as long as educated people are not embarrassed but rather proud

of their poor levels of competence then this will not alter.

As Benn (1997 p.35) notes, 'It seems that despite calls for over 100 years for an approach to mathematics that interests and stimulates children at school, mathematics is still a subject that confuses, alienates and leads to failure.'

In looking at the development of numeracy skills there are many interesting theories of how and why people learn these basic concepts. Perhaps best known is the work of Piaget and Inhelder (Collis 1975) on how children learn which identified four stages of intellectual development, sensori-motor from 0-2 years of age, pre-operational from 2-6 years, concrete operational from 6-11 years and formal operations from 11. These they maintained corresponded to a child's grasp of concepts such as geometric shape and manipulation of fractions. They surmised that children were unable to grasp certain concepts until they had reached the appropriate stage of development.

I was undertaking further professional development at the time and one of my assignments focussed on educational theory so I chose to look more closely at the research of Piaget and Inhelder (Collis 1975). It was then that I started to think that there could be a correlation between their stages and the fact that some of my adult Numeracy students had never made much progress in educational terms beyond Primary level (Key Stage 2.) I found it very interesting to note how the formal key stages of education match closely to these four stages of intellectual development. I was also particularly interested in the fact that many of my adult Numeracy students talked about 'coping' with their own maths studies (or helping with children's homework) up until the start of Key Stage 3 but were unable to make much progress themselves into the Core Curriculum Level 1 and beyond.

I started to wonder if it was possible that they had not yet reached the higher levels of intellectual development that are maintained to

occur from 11 to 14 years of age because of a lack of input of concrete experiences or that these students might need more in the way of the sort of active learning that goes on in primary education rather than the paper-based methods I had been using. At the time I was the Numeracy governor at my children's school and was invited to a briefing about the new National Numeracy Strategy (1999) which laid heavy emphasis on active learning methods. While I felt that many of the methods were not suitable for my adult learners I was interested in things like the use of multiplication and hundred squares and how they were being used to teach number relationships and started using those in my sessions.

Bruner's research (1964) into how people learn suggested three modes of representation: enactive, representing past events through a motor response; iconic, picturing an operation to recreate it mentally; and symbolic, writing maths equations. Bruner says these three stages are related to Piaget's stages of cognitive development and develop sequentially. He argued that you should present maths in this way when teaching, for instance when dealing with shape you should handle the shape, draw the shape and then write about it.

Ernest (1991) gives a different perspective on the failure of maths education arguing that the problem is one of philosophy. He argues that maths is not seen as relevant to people but as an abstract, absolute discipline which is not shaped by and cannot relate to everyday life and ordinary people. He argues for a change in philosophy for maths education away from the view that maths is an absolute truth not subject to change - which he calls an 'absolutist' view. In this view he argues (Ernest 2000,p.1),

"The outcome is therefore a philosophically sanctioned image of mathematics as rigid, fixed, logical, absolute, inhuman, cold, objective, pure, abstract, remote and ultra-rational. Is it a coincidence that this image coincides with the widespread public image of mathematics as difficult, cold, abstract, theoretical, ultra-rational, but important and largely masculine. Mathematics also has the image of being remote and inaccessible to all but a few super-intelligent beings with mathematical minds."

Benn (1997) reinforces this view. In her studies of the maths that people experienced in their everyday lives in craft activities like knitting she states, (Benn 1997 p.36),

'Many of these pleasurable processes are not thought of as mathematical. Indeed it sometimes seems that if people can do it, it is called common sense, if they can't, it is called mathematics.'

The alternative point of view is 'fallibilism', the view that emphasises the human side of mathematics. In this view mathematics is experienced as (Ernest 2000,p.1),

'warm, human, personal, intuitive, active collaborative, creative, investigational, cultural, historical, living, related to human situations, enjoyable, full of joy, wonder and beauty.'

This relates to the growing trend in maths education to teach children about the history of maths eg. the Egyptian number system, the work of early Greek mathematicians and to look at examples of 'mathematical art', to encourage them to see that maths has been created by humans and can be altered by humans.

I believe that adopting a multi-sensory, active learning approach to numeracy teaching can benefit all learners not just those with particular learning difficulties or disabilities. In particular the use of engagement through activities which involve concrete experiences. Much of maths has traditionally been taught in a didactic way involving explanations of concepts through board work then individual 'exercises' done by the students to demonstrate their understanding of the concept explained.

As a result of these thoughts I started to introduce further active and 'discovery learning' into my sessions using strategies such as these below.

- Handling of models of solid shapes when discussing properties of a shape
- The use of number lines for counting, multiplication tables and negative numbers
- Investigating the relationship between the circumference of circular objects and their diameter by using string and rulers to measure the dimensions
- Using multi - link cubes to investigate volume of different solid shapes
- Investigating the largest possible volume of cuboid that could be made from one sheet of paper.

Since coming to work at the University I have been privileged to work with many fantastically creative and inspiring teachers and trainee teachers and have gained many more ideas about activities for the classroom. As I no longer (sadly) teach adult Numeracy my role now is to pass on these ideas to future students and to continue to research and develop my own.

This has involved an ongoing search for ways to involve chocolate in my teaching not just for eating, it has to have a learning objective attached! So far I have found a use for Quality Street with Carroll and Venn diagrams for categorising shapes, Terry's chocolate orange for volume, radius and diameter work, bars of chocolate for fractions and the ever useful Smarties or Skittles for ratio, proportion, fractions and data handling work. I have also found many excellent activities through the Association of Teachers of Maths (details in references) I can highly recommend their Algebra jigsaws you will hear people getting excited about algebraic simplification!

As for the items mentioned in the title they are used as follows.

- The forty Ferrero Rocher are used in an activity I developed to look at the application of the formulae for the volume of sphere and cuboid to working out how much wasted space there is in two different sized boxes of the chocolates.
- The four kilograms of macaroni are for a brilliant activity that I found on the internet called 'The Cylinder Problem', (see references for details) which explores the relationship between basal area and height in the volume of cylinders. You can use rice for this one but pasta is easier to pick up off the floor!
- The Tower of Hanoi is one of a new set of wooden puzzles I have recently bought through a magazine subscription to *Classic Puzzles and Brainteasers* and is used to illustrate how algebraic solutions can be used for problem solving.

My quest for more ideas for active learning has renewed my enthusiasm for the subject engaging me in further professional study, this time in looking at metacognition in maths teaching and the history of the development of mathematical ideas. I and my students have also had far more fun in the last few years than anyone is probably supposed to in a maths classroom!

Ahmed A. 1987, *Better Mathematics A Curriculum Development Study*, HMSO, London

Association of Teachers of Maths  
Available from  
<http://www.atm.org.uk>

Benn R. 1997, *Adults Count too - Mathematics for Empowerment*, NIACE, Leicester

Bloom, B.S. (Ed.) (1956) Taxonomy of educational objectives: The classification of educational goals: Handbook I, cognitive domain. New York ; Toronto: Longmans, Green

Bruner J.S. 1964 'Some theorems on instruction illustrated with reference to mathematics', *The Sixtythird Yearbook of the National Society for the Study of Education part 1 Vol 63* referred to by Rosnick L. and Ford B. 1981 *The Psychology of Mathematics for Instruction*, Lawrence Erlbaum Associates Inc., New Jersey

Classic Puzzles and Brainteasers 2004, London, Hachette Partworks Ltd

Collis K.F. 1975, *A Study of Concrete and Formal Operations in School Mathematics : A Piagetian Viewpoint*, Australian Council for Education, Melbourne

Ernest P. 1991, *The Philosophy of Mathematics Education*, Falmer Press, Hampshire

Ernest P. 2000, The nature of Mathematics and Teaching, *Philosophy of Mathematics Education Newsletter*, No 9 (online)  
Available  
<http://www.ex.ac.uk/~Pernest/pome/pompart7.htm>  
Accessed 17.8.00

National Numeracy Strategy 1999 Framework for teaching mathematics, Sudbury, DfEE  
Available online  
[http://www.standards.dfee.gov.uk/numeracy/teaching\\_resources/?sec=0](http://www.standards.dfee.gov.uk/numeracy/teaching_resources/?sec=0)

The Cylinder Problem  
Available online  
<http://mathforum.org/brap/wrap/elemllesson.html>

## Section 2.

### Music hath charms.....

*Sarah Williamson*

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The effect of music on the moods, emotions, development and behaviour of both individuals and groups has often been noted throughout history. The playwright William Congreve observed 300 years ago that *music hath charms to soothe the savage breast*, but there are more recent claims for the beneficial effects of music in education!

Opinion has been divided on the effect of music to improve learning performance and the debate still continues on whether music can build and improve reasoning, memory and intelligence. However, using music in lessons can be part of an interest and desire to be more creative as a teacher. Importantly, it can also help us to manage the psychological and emotional climate of a classroom.

***'Music is like putting a warm blanket round students when they come in.'***

Teacher

Using background music can create a pleasant and inviting learning environment, and can be part of a strategy to welcome learners to a class. It can help learners to feel at ease, reduce anxiety and break down barriers, particularly at the start of a course. Teachers who use music often comment that it helps them to create a supportive and relaxed learning atmosphere. They deliberately use calming music to reduce learner tension and stress. The first session of any course is one of the single most important occasions and learners are often very quiet, silent even. The adult literacy learner may find attending the first class particularly daunting - merely talking to another person can be an ordeal if everyone else can hear what is being said. If background music is playing before a class starts, learners may feel less anxious and maybe more likely to start a conversation and interact.

Learners have demonstrated that they are sensitive to the effect of music on the classroom environment and atmosphere, with many remarking that they have found the use of background music relaxing, soothing and calming. One teacher recently reported that after experimenting with background music in one lesson, an adult group had particularly asked for it to continue as 'they said it was therapeutic and soothing'.

***'I may come from home with a million things in my head, and music helps me clear my head ready for the lesson.'***

Learner

Music does not have to be restricted to before and at the start of a lesson. It can be used as a timing device during group or individual tasks and exercises. This can be especially valuable at the start of a course when some learners can be self-conscious and hesitant about participating in groupwork. It can helpfully blend and mask those dominant and confident voices which may be off-putting to others. Some adult literacy teachers also find that music can give some privacy when feeding back to individual learners or groups.

***'It provides background noise when working in groups which I like'***

Learner

Music can be a classroom management tool, helping to create a receptive state for learning. Appropriate choices can energise, motivate, relax, calm, focus, link to a theme or a certain stage in the course. Music can signpost the start, finish and particular sections of a lesson. When you are ready to begin a class, simply turning music off can give a subtle, auditory signal that the lesson is about to start. It can be used throughout break time, with a different 'upbeat' track used towards the end to signify that the lesson will resume, for example, in two minutes time. Active parts of a lesson, maybe where students are required to move around to complete a task or to clear up can be promoted with lively, energetic music. Reflective, contemplative periods in a lesson can be enhanced by quiet music in the background. Music played at the end of a lesson can promote a positive feeling as students are leaving. Celebratory moments in a course can be recognised and made more enjoyable and memorable.

***'Music helps me get a class off to a good start. I use it to make the classroom seem a bit special'***

Teacher

Music can be incorporated into lessons in other ways too. A backing soundtrack for a series of images, statistics or statements on PowerPoint or acetates can replace verbal exposition and teacher talk and have far greater impact! Themed

soundtracks can be compiled to complement and enhance a subject or topic.

Music from different cultures can be used to reach out to learners, and can be a way of recognising and valuing diversity. One student of West African origin felt he had been valued as an individual when a teacher researched and subsequently used West African music in a lesson.

***'I wanted to make a point about equal opportunities and not just use Eurocentric music.'*** Teacher

Through the use of background drumming music in one lesson, a teacher found something in common with a learner where this had previously been difficult. Rap and hip hop has also been used to engage and motivate younger learners with low levels of literacy. In one project, hip hop lyrics were used to teach imagery, assonance, alliteration, rhythm and rhyme. Learners were then encouraged to write creatively in rap form using techniques they had learned.

A variety of musical genres and styles can be used, for example, classical, jazz, blues, contemporary rhythmical or 'chilled'. The predictability of Baroque music (particularly Mozart) is often recommended as effective background music along with sounds from nature; both can offer unobtrusive background accompaniment. However, some teachers warn against the saturating effect of using music all the time or only using one type of music, suggesting that music can lose its impact and effect if 'used as wallpaper'. Another point, raised by an adult literacy teacher, is that classical music *may* form a barrier, giving an impression that the teacher 'lives in a different world to the learner' and is therefore unapproachable.

Gardner's theory of Multiple Intelligence includes a 'musical intelligence' and although the theory has been criticised, it has been influential. It has been suggested that learners with musical intelligence are sensitive to sounds and will respond positively to, and will benefit from, music in the learning environment. Many students do respond positively to background music in lessons, but sensitivity needs to be shown towards those who may dislike certain music, or find it distracting or intrusive. Teachers should exert care, investigating and researching individual student needs and preferences. It is

important to respect learning differences and to check that music does not distract or hinder learning, particularly during individual study time.

Learning experiences which are multi-sensory, dramatic, unusual or emotionally strong will be remembered for longer and in more detail than those which are ordinary and routine. Music can be part of a multi-sensory learning environment and wider sensory experience, helping to provide drama, emotion, impact and a state of anticipation or excitement.

***'I was immediately intrigued by the music, and I was keen to find out how 'different' the lesson would be.'*** Learner

A fun quiz where adult literacy learners recognise popular theme tunes in 'hooked on classics' formats could be a first step in developing the confidence to transfer skills to word recognition. A sequence of differing and emotive musical mood pieces could be played in an exercise to develop the use of adjectives. Learners could be given some unfamiliar song lyrics and asked to guess whether the music would be fast, slow, melancholy, jolly etc. before listening to see if their impression matched the tunes.

Creative ideas are needed to attract, involve and engage adults with low literacy skills. Consider using music - it really can be a positive classroom management tool which can relax and engage your learners. Music offers opportunities to enrich the teaching and learning experience in many ways.

***'Using music is a way of warming up the mind.'*** Teacher

## Section 3.

# Deterrents to Participation in Adult Learning Activities And Literacy Skills Among Seniors: An Exploratory Study

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### Abstract

This study investigated the effect of variables that may influence the decision of seniors over the age of 60 not to participate in adult learning activities and literacy skills.

To measure seniors' reasons for not participating in adult learning activities, the Deterrents to Participation Scale-General was administered. Literacy skills were measured by the Tests of Applied Literacy Skills document literacy domain. To test the factors that were expected to affect non-participation, a survey questionnaire was administered to two groups, those who were currently participating in an organized adult learning activity and those who were not.

Multiple regression estimates demonstrated that none of the regression lines could be plotted against any of the six deterrents to participation as criterion variables on the five SES variables as predictors. However, when the SES variables were held constant, only the effect of the variable employment status using the deterrents to participation lack of course relevance and low personal priority had a tendency to deliver the strongest explanatory power among all other predictor variables. Furthermore, regression estimates demonstrated that none of the six deterrents to participation had any effect on participation and that document literacy skills could not be predicted as a function of participation. In addition, the DPS-G showed low reliability estimates suggesting that the instrument needs to be revised taking into consideration other dimensions of deterrents to participation that are more relevant to seniors' lives.

### Introduction

According to recent large-scale assessments, non-participation in adult literacy programs by older age groups and the extent barriers or deterrent forces contribute to the problem, are serious concerns. The 2001 census, for example, reported that only 43% of the Canadian population aged 65 and over had a high school education, while 84% of those aged 25 to 34 had reached that level of education (Statistics Canada, 2003).

Seniors 60 years of age and over with low literacy skills are especially at risk because healthy and active living requires certain levels of literacy (Statistics Canada & HRDC, 1998). Low participation rates by seniors in literacy programs indicate that a significant proportion of the older 'at risk' Canadian population is experiencing difficulty in performing tasks that are necessary for interaction and possibly even basic functioning (OECD, 1997). These figures are alarming, considering that the level of literacy required by seniors to communicate and make informed decisions today has, in fact, increased because of the rapidly changing economic and technological environment (Crompton, 1996; Lowe, 1997).

The participation of older adults in adult learning activities is of particular concern in Canada because large company layoffs, such as those from IBM, Sears, and General Motors, have put many white-collar employees out of work. These newly unemployed workers, many well into middle age, often must retrain in order to secure employment (see the April 1, 1996, issue of *Fortune*). According to Statistics Canada (2003), about half the population aged 55 to 64 continues to be active in the labour market. Estimates of the number of adults over 64 working either full-time or part-time are not well documented. This may be because the latest census (2003) has defined the Canadian working-age population as aged 25 to 64. As well, many retirees have come back into the labour market in the last few decades and many have needed to retrain at age 65 or older (Alexander, 1998), and this change has not yet been fully accounted for.

Participation in educational endeavours by the learner over age 60 is generally not for credit or formal recognition, but for immediate use, personal satisfaction and socialization (Pearce, 1991). Participation of adults in education is concentrated in the economically active population, and especially in people between 30 and 45 years of age. After this age, participation in training initiatives drops to practically half, and only 7% of the people over age 60 engage in any type of training initiative, mostly for

leisure or recreation (Cardenas, 2000). For example, current research indicates that retired people and people over 60 do not participate, mainly for lack of interest (Cardenas, 2000). With younger adults, those who are under 60 years of age and participate in the labour market, non-participants are generally older, have less than a high school education, have low-paying or no jobs, and are more frequently female and from rural areas (Martindale & Drake, 1989).

### Overview of the Study

The purpose of this study was to explore the effect of variables that may influence the decision of seniors age 60 and over not to participate in adult learning activities and literacy skills. It was based on the notion that non-participation is a result of complex responses to psychological, environmental, and socio-economic factors.

The study was guided by a conceptual framework of non-participation which included Rubenson's (1977) Expectancy-Valence model, Cross' (1981) Chain-of-Response model, and Darkenwald and Merriam's (1982) Psychosocial Interaction model. These models characterized deterrents of non-participation as situational, dispositional, informational, institutional, and psychosocial. Further direction was maintained by the results of the International Adult Literacy Survey (IALS; OECD, 1997). Finally, the uniqueness of this study was enhanced by using the Tests of Applied Literacy Scale.

Described below are the three research questions that were of primary interest in this investigation. It is important to note that no hypotheses were proposed about its direction.

1) Which of five socio-economic status variables (age, income, gender, employment status, education) as measured by the Deterrents to Participation Scale-General (DPS-G) are the best predictors of deterrents to participation in adult learning activities by seniors age 60 and over?

The rationale for such a research question was in response to the research literature (Beder, 1990; Beder & Valentine, 1990; Darkenwald & Merriam, 1982; Henry & Basile, 1994) indicating the lack of a clear substantiation of the interaction between socio-economic status variables such as age, gender, income, educational attainment, employment status, and deterrents to participation in adult learning activities by seniors age 60 and over.

2) Which of six deterrents to participation (lack of confidence, lack of course relevance, time constraints, low personal priority, cost, and personal problems) as measured by the Deterrents to Participation Scale-General (DPS-G) are the best predictors of participation in adult learning activities by seniors age 60 and over? The rationale for this research question was in response to the need to investigate and identify nonsocio-economic status variables that deter different subgroups of individuals from participating in adult education (Beder, 1990; Toughill, Mason, Beck, & Christop, 1993; Valentine & Darkenwald, 1990).

Many systems of characterizing nonsocio-economic status variables have been developed to explain participation. The most often cited systems (Cross, 1981; Darkenwald & Merriam, 1982; Rubenson, 1977) have used typologies that include situational (associated with individual life circumstances, particularly in terms of career and social roles); dispositional (associated with values, attitudes, beliefs, or opinions); and psychological (associated with individual psychological or personality traits). While many studies (Beder & Valentine, 1990; Boshier, 1986; Cookson, 1987; Cross, 1981; Darkenwald & Valentine, 1985; Merriam, 1987; Scanlan & Darkenwald, 1984) have investigated situational, dispositional, and psychological variables that deter younger adults (16-59), there exists a need to explain the variables that deter older populations (60 and over) from participation.

3) Is participation (as measured by the Participation Survey) in adult learning activities by seniors age 60 and over a predictor of seniors' literacy skills (as measured by the Tests of Applied Literacy Skills, TALS document domain)?

The researcher wanted to know if seniors' participation or non-participation in adult learning activities (the predictor variable) had an impact on document literacy level (the criterion variable) as determined by the TALS. The assumption was that the level of document literacy was influenced by participation in any organized adult learning activity. Since the Participation Survey asked respondents to rate their level of activity in any organized adult learning context, the implication is that respondents participated in and learned from activities that were delivered through "informal" modes rather than solely "formal".

Currently we don't know if participation in an

informal learning context impacts one's literacy skills. It is possible that for many seniors who don't participate in a formal learning context, literacy skills may be increased by learning at home with the help of a friend, family member, a neighbour, or the media. The positive effect of participating in an informal learning context on literacy has been documented in the past (IALS; OECD, 1994). The idea, however, has never been empirically tested before.

### Methodology

There were 183 healthy Canadian English speaking older male and female adults over the age of 60 in the actual sample to be studied. These research subjects were drawn from five randomly selected northwestern Ontario communities.

Research subjects were obtained through the use of recruitment methods such as advertisements in local newspapers. To ensure the variability of participants and non/participants, recruitment was made from two groups; seniors who were currently participating in an adult learning activity and those who were not. To test the factors that were expected to affect non-participation, a survey questionnaire was designed to determine participation. To ensure variability in the SES dimensions, participants were solicited from various adult learning programs, retirement associations, church groups, volunteer centres, and senior citizens organizations.

This exploratory study was concerned with describing the effect between a criterion variable and one or more predictor variables. To answer the first research question, six separate multiple regressions were estimated, one for each of the deterrents as a criterion variable with the five SES variables as predictor variables. The analysis generated a matrix of correlations among all variables. SES variables were assessed by tabulating results from specific questions asked on the DPS-G. The researcher did not control for any of the SES variables before introducing the six deterrents in the regression model; they were introduced together in the regression analysis.

To answer the second research question, logistic regression analysis was used. Logistic regression is appropriate for predicting participation/non-participation when the criterion variable is discrete (Wright, 1995).

To answer the final research question, multinomial logistic regression was used to

model the relationship between the outcome variable non-participation (coded 0) and participation (coded 1). Outcome variable data was obtained from the Participation Survey and ordinal data from the TALS document literacy scale (literacy level 1- 4). The same procedure was repeated to test for associations between the literacy levels obtained from the TALS proficiency scores and participation.

### Findings: Key Elements of the Study

#### *The Employment Status Variable*

The most important predictor of deterrents to participation in this study seemed to be the employment status variable. Overall, when all other predictor variables were held constant, a contrast was observed between the employment status variable ( $t_{177} = 1.798, p < 0.05$ ) and lack of course relevance. A contrast was also observed between the employment status variable and low personal priority ( $t_{177} = -2.074, p < 0.05$ ). Though the above findings were small and insignificant, a larger sample taken from a less remote geographical area, such as from southern Ontario, may have produced different and practical findings.

It must be emphasized that the connection between occupational status (e.g., accountant, manager, technician) and participation was not examined in this study. This does not mean, however, that the employment status variable is excluded from having occupational significance, role, or identity. For example, many seniors who are retired from the workforce are fulfilling important roles in society (e.g., volunteering) and should be recognized as having occupational status (National Advisory Council on Aging, 1999).

In regard to employment status, the DPS-G provided research subjects with only three responses to choose from: (1) Full-Time; (2) Part-Time; and (3) Not Employed. Since this was the order the data was coded in, it meant that the "least" employed the person was, the "higher" the score, and the more fully employed the "lower" the score. The results showed that almost 80% of seniors were inactive in the labour market. The researcher assumes that most seniors reported being "not employed" because the structure of the DPS-G did not include a fourth response, that of being "retired". Hence,

Table 1.0  
Summary of Multiple Regression Analysis ( $\hat{\alpha}$ ) for Socio-Economic Status Variables Predicting Deterrents to Participation (N = 183)

SES Variables	Lack of Confidence	Lack of Course Relevance	Time Constraints	Low Personal Priority	Cost	Personal Problems
	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$	$\beta$
Gender	.064	-.008	-.073	.109	.050	-.094
Age	.047	.021	-.067	.026	-.134	-.036
Education	-.049	-.031	-.078	.011	-.073	-.025
Income	-.037	.085	.062	.123	.120	.054
Employ	.093	.143	-.024	-.163	.058	.005

### Deterrents to Participation

the researcher's interpretation is that many seniors may have perceived the 'not employed' choice as the same as being out of the workforce due to retirement. This conclusion would support earlier findings (Statistics Canada, 2001) in that the majority of seniors are retired and only a small proportion still participate in the paid workforce.

The notion that employment status may have an impact on participation is supported by all three composite models of participation that were previously introduced. Cross' (1981) Chain-of-Response model, for example, explained the significance of the influence of the employment status variable on participation as life events and transitions, such as exiting the workforce or retirement. This notion is also conveyed in Rubenson's Expectancy-Valence model whereby the degree of attraction or value placed on adult education is contingent upon one's previous successes in their environment, such as during and out of employment.

According to Darkenwald and Merriam's (1982) Psychosocial Interaction model, employment status is one of the most important SES variables to influence participation in adult education. The authors indicate that the value and utility of participation is influenced by employment status since employment may stimulate internal needs or desires related to self-expression or self-improvement. They also indicate that the employment status variable can exert pressure on participation, as do social roles. The notion is that the employment status variable acts as a form of social identity and that the usefulness, appropriateness, and enjoyability of engaging in adult education is perceived differently when this identity changes, such as in the case of retirement or being out of the workforce. While being in the workforce and career objectives may provide individuals reasons for participating in adult education, the Darkenwald and Merriam (1982) model points out that participation while out of the workforce

may provide greater intrinsic value and usefulness as a means of achieving 'personal' goals. A comparable notion is found in Rubenson's (1977) model.

Understanding the impact of SES variables such as employment status on seniors' participation is a challenging task. In order for us to fully understand the impact of these variables, perhaps we need a different perspective. In fact, Findsen (2001) suggests using 'critical gerontology' and 'political economy' as 'tools' to investigate what deters seniors aged 60 and over from participation in adult learning. In his introductory notes, Findsen (2001, p. 1) argues that "the traditional conceptions of participation from within the field of adult education are insufficient to describe the inequitable nature of older adults' participation in learning activities." Using a gerontological perspective may help to modify and increase the validity of those instruments that currently attempt to measure deterrents to participation, in this case the DPS-G factor structure.

### *Employment Status and Lack of Course Relevance*

The lack of course relevance was defined by Scanlan (1984) as questionable worth, relevance or quality of available educational opportunities associated with research subjects' perceptions of program inadequacies such as overall poor quality, or inappropriate level or methods. Cross (1981) grouped lack of course relevance as an institutional deterrent. According to Cross, institutional deterrents also consist of scheduling problems, location, transportation, practicality, enrolment red tape, and lack of information on programs.

The deterrents to participation in educational activities most frequently reported by adults (18-55) are lack of time and cost (Carp, Peterson, & Roelfs, 1974; Johnstone & Rivera, 1965). This means that a busy lifestyle, home and financial responsibilities, and other time-consuming obstacles are significant deterrents for adults under the age of 60. However, for

seniors over the age of 60, the results of this study suggest that as employment status decreases (they are less employed and eventually out of the workforce), seniors tend to consider lack of course relevance as a more important deterrent to participation.

Out of the eight items (or questions) on the DPS-G measuring the deterrent lack of course relevance, seniors rated item 32, 'Because I didn't think the course would meet my needs', as one of the most important reasons in their decision not to participate in an adult learning activity ( $M = 2.39$ ). Daniel, Templin, and Shearon (1977) support these findings, indicating that the three most frequently cited reasons by seniors for taking adult education courses are to learn more things of interest, to meet people who are interesting, and to be able to contribute to society. Others (IES, 2000) indicate that the most important reasons for older adults to continue learning after exiting the workforce are intellectual, such as remaining mentally active, the challenge of learning new things, and learning things that are interesting to them.

#### *Employment Status and Low Personal Priority*

According to Scanlan (1986), low personal priority is defined as the lack of motivation or interest in engaging in adult learning activities. Similarly, Cross (1981) classifies low personal priority as a dispositional deterrent, such as the lack of ability or interest. Dispositional deterrents have been found to be more prevalent among adults (under the age of 60) who do not participate in adult learning activities than those who do participate (Scanlan, 1986). However, for older adults (60 and over), a lack of interest in learning has been one of the most common reasons not to learn (IES, 2000). Out of the five items (or questions) measuring the deterrent low personal priority on the DPS-G, seniors rated item 20, 'Because I'm not that interested in taking courses', as one of the most important reasons for not participating ( $M = 1.89$ ). Recent studies on the effect of seniors' employment status (i.e., employed full-time and/or part-time, or not employed) on participation are useful in explaining the importance of the deterrent low personal priority to this study. For example, researchers have found that those in employment are more likely to be continuous learners while retirees are more likely to drop out of learning or be non-learners (IES, 2000), suggesting that unemployment (and perhaps retirement) can be a "trigger" out of learning. This study does not

support these findings. In fact, the findings of this study tend to suggest that it is the reduction in work-related (or instrumental) learning that plays a major role in rates of later-life or post-retirement involvement in adult learning. That is, seniors who retire from the workforce are involved in adult education for different reasons. Furthermore, participation increases because their interests in formal adult learning are more commonly associated with leisure activities rather than with work. In a way, this is supportive of and consistent with utility theory. For example, many working individuals who make decisions to participate base them on their employer or work situation, and/or their ability to gain from the course completion. In contrast, those who are inactive in the workforce, such as retirees, value and utilize adult education for different reasons. Harris, Louis, and Associates (1975) support this assumption, indicating that seniors' primary reasons for taking courses are to make good use of their time and to be with others, but for younger adults, it is to acquire a good job. Essentially, for most seniors, past employment has been instrumental in the decision to participate in training and education and now their motives have changed.

#### *Document Literacy Skills*

Most seniors (81%) in this study scored at level 3 document literacy (see Table 1.3). That is, they showed no evidence of having difficulty in locating, cycling through, or integrating information found on tables, charts, forms, maps, or graphs. In fact, most of them were able to complete some of the most complex document literacy tasks attainable. In addition, no differences were found between seniors categorized as participants and/or non-participants and their document literacy scores. This was an unexpected pattern. Usually, there is a steady but modest decline, particularly in document literacy levels shortly after age 60 (IALS; OECD, 1997).

The findings of this study indicate that the connection between education, age, and applied document literacy skills is inconclusive. While education may be the most common path to applied document literacy skills, it is quite possible to acquire them by other means such as by trial and error (IALS; OECD, 1997). Hence, understanding the relationship between applied document literacy scores and educational attainment by seniors is a complex phenomenon.

**Table 1.1**

*Summary of Mean Scores of Deterrents to Participation by Participation and Non-Participation Group*

Group	Deterrents to Participation Variables					
	Lack of Confidence	Lack of Course Relevance	Time Constraints	Low Priority	Cost	Personal Problems
non-participation (n = 61)	1.56	1.79	1.76	1.38	1.46	1.20
participation (n = 122)	1.16	1.80	1.78	1.44	1.40	1.17

**Table 1.2**

*Pearson Product-Moment Correlation Coefficients of Deterrents to Participation and Socio-Economic Status Variables (N = 183)*

SES Variables	Deterrents to Participation					
	Lack of Confidence	Lack of Course Relevance	Time Constraints	Low Priority	Cost	Personal Problems
Gender	.0640	-.0259	-.0654	.0872	.0562	-.0949
Age	.0710	.0827	-.0510	-.0383	-.1046	-.0113
Education	-.0778	.0100	-.0343	.0635	-.0041	.0133
Income	-.0728	.0646	.0152	.1233	.0580	.0542
Employment	.1107	.1470	-.0483	-.1622	.0048	-.0076

**Table 1.3**

*Summary of Standard Deviations and Mean Document Literacy Proficiency Scores by Participation and Non-Participation Group*

Group	M	SD
non-participation (n=61)	300.13	19.13
participation (n=122)	300.48	23.55

### Summary

In summary, this study has examined seniors' deterrents to participation in an organized adult learning activity and literacy skills. It found that the socio-economic variable employment status had, to some extent, the greatest predictive power on two deterrents to participation: lack of course relevance and low personal priority. This may suggest that seniors who are inactive in the workforce may engage in organized learning for reasons other than instrumental or job-related. It follows that retired seniors or those who are not active in the workforce may not take courses to obtain a job, further a career, or be promoted. That is, participation is no longer associated with workplace learning. The results may also

suggest that these deterrents are the product of courses that are too general, impractical, or meaningless to seniors' lives, and that they may be located too far away or scheduled at an inconvenient time. In addition, they may have been too lengthy, or seniors may have perceived the courses as too difficult to complete.

Overall, the results of this study have shed some new light on our understanding of the participation rates by seniors in research studies, and the influence of the employment status variable on the deterrents to participation lack of course relevance and low personal priority.

## Limitations

A quantitative investigation does not delineate the process but rather the outcome or product of meaning-making (Merriam & Simpson, 1995). Without an understanding of how seniors make sense of their lives and how they interpret those experiences, it was impossible to compare the existing research data (which is based primarily on the participatory behaviour of younger adults) with older age groups.

Over 73% of the respondents from this study had high literacy skills. But this does not necessarily mean that all the respondents had high educational attainment. The IALS (OECD, 1997) emphasized that one's literacy ability should not be perceived as the equivalent to one's educational background and that most Canadian seniors do not fit this pattern. It is important to point out that the data collected from the TALS in this study measured similar data surveyed by the IALS. Therefore, it is possible that seniors do not only acquire document literacy skills through elementary and secondary schooling. Jarvis (1985) lends support to this notion. Seniors can acquire and improve their literacy skills by participating in non-systematic educational activities, such as watching television. The IALS (OECD, 1997) clearly indicates that literacy levels vary with level of education among Canadian seniors for all three dimensions of literacy, particularly the document domain.

Many of the volunteers for this study were members of church, senior citizens groups, or seniors organizations. The problem is that volunteers are usually better educated, healthier, more mobile, social, and liberal in attitudes, beliefs, and lifestyles (McPherson, 1990). The position that low educational level is associated with low rates of participation is maintained by Statistics Canada (1998). However, the present research does not support these findings. That is, both participants and non-participants in this study had similar educational status. On the other hand, because the investigation lacked research subjects with low educational attainment, it was impossible to test the results reported by Statistics Canada. Finally, this study found that the DPS-G was unreliable to measure seniors' deterrents to participation. Darkenwald and Valentine (1985) had previously emphasized that the DPS-G was in need of replication, in that the scale may not be suitable for use with all adult populations, particularly different subgroups. However, the reference groups in this study did not give the researcher any reason to believe that there were

other deterrents worth considering than those that were previously found by the authors.

Consequently, no specific test has ever been developed to study what deters seniors from participating in adult learning activities. This is a new area for development. In other words, the scale does not measure the right dimensions relevant to seniors' lives.

The incidence of disability, widowhood, death of a family member, group participation, or the effects of exiting from the workforce may be additional concepts to consider in future developments of the scale. In addition, there are several new dimensions worth exploring that can contribute to the development of a new DPS for seniors. They include: (1) Health dimensions; (2) Economic and/or political dimensions; (3) Social dimensions; (4) Cultural and race/ethnicity dimensions; and (5) Educational and/or environmental dimensions. Furthermore, the researcher did not know to what extent seniors were already involved in other types of learning activities and which organizations offered them. Also, it may have been more helpful to identify learning activities as formal and informal. The Participation Survey did not take this into consideration. Hence in future studies, it is recommended that during the pilot study, one gathers qualitative data from a larger cross-section of seniors.

## Internal Consistency and the DPS-G

Findings from the reliability analysis of this study support the need for a revised Deterrents to Participation Scale. The low reliability coefficients indicate that the 34 items (or questions) in the scale are not all representative of seniors' deterrents to participation (see Table 1.4). These results may be understandable given that when a psychometric test measures several attributes/dimensions rather than one, Cronbach's alpha may be deflated (Zimmerman, Zumbo, & Lalonde, 1993).

Even though the DPS-G has received support for its content validity and construct validity, as well as its applicability to different populations (Beder, 1990; Beder & Valentine, 1990; Hayes, 1988; Martindale & Drake, 1989; Scanlan, 1986; Valentine & Darkenwald, 1990), in general, the internal consistency of the DPS-G has only been stable with the general public and not with well defined populations or subgroups such as seniors (Darkenwald & Valentine, 1985). The following six points provide a basis for justifying the need to refine the DPS-G to include items that befit

older adult populations.

1. Very little is known about the scale's validation with samples of Canadian adults over the age of 60. Items such as professional development courses on the DPS-G, may have been relevant only to younger (under age 60) employed adults and not to seniors (age 60 and over) who are inactive or retired from the workforce. In fact, there may have been other particular dimensions of deterrents to participation of seniors that the DPS-G was not able to measure. This resulted in low reliability estimates which are indicative of the multidimensionality of the deterrent construct hypothesis.

**Table 1.4**

*Reliability Analysis Summary for the Six Deterrents to Participation (DPS-G)*

Item Statistics	Lack of Confidence	Lack of Course Relevance	Time Constraints	Low Personal Priority	Cost	Personal Problems
Item Mean	1.21	1.83	1.93	1.60	1.56	1.27
Minimum	1.15	1.57	1.75	1.34	1.46	1.17
Maximum	1.25	2.39	2.20	1.89	1.70	1.40
Variance	.0012	.0731	.0273	.0481	.0153	.0070
Mean Inter-item Correlation	.2695	.2289	.2652	.1926	.5501	.2728
Cronbach's Alpha	.7250	.6887	.5487	.4788	.7418	.5713
Standardized Item Alpha	.7470	.7036	.6435	.5439	.7858	.6523
Valid Cases	183	183	183	183	183	183

2. The standard deviation in many of the DPS-G item structures had high variability and was not conducive in increasing the structure of Cronbach's alpha. As a result, the reliability analysis in this study suggests that seniors' decisions to participate in adult education are influenced for different reasons than for those of other younger adult age groups.

3. Patterns of low item means are characteristic of the original DPS-G and other psychometric instruments designed to identify motivational orientations (Darkenwald & Valentine, 1985). These patterns are commonly used as indicators of the average score in a distribution such as the questions asked on the DPS-G, and from an applied standpoint, strongly influenced by extreme scores. The low DPS-G item means found in this study, with the majority of the importance ratings "Not Important" to "Slightly Important", suggest that the decision of seniors not to participate in an adult learning activity may be due to the collective effects of additional deterrents, instead of just five or six. Usually, alpha will be higher when there is homogeneity of variances among items than when there is none (Miller, 1995).

4. A high ratio of females to males affected the distribution and perhaps the low reliability estimates of this study; there were close to 22% more elderly females than males. The fact that more elderly women belong to a greater

selection of associations and it is more common for them to attend meetings and activities regularly, may explain why the majority of respondents in this study were elderly female and were recruited from seniors centres. It may also be that many elderly females, especially the very old, are more involved in solitary rather than group activities such as those found in seniors organizations (Moss & Lawton, 1982). On the other hand, it may be that only those who were healthy, physically fit, and had access to transportation participated in this study.

5. Another contributing factor to the low reliability estimates may have been educational attainment. There were very few seniors in this study with low educational status. The majority of respondents had a high level of educational attainment. One explanation is that prior level of education is extremely important in determining the probabilities that seniors will participate in different activities. My point is that low educational attainment may be a determinant of participation in research studies involving seniors, particularly seniors with low literacy skills who are recruited for studies that involve the completion of questionnaires. Researchers have found that rates of participation in adult education and training increase gradually with increasing levels of educational attainment and literacy skills (IALS; OECD, 1997).

6. It is stated that no test developer can present predictive validities for all possible criteria

(Cronbach & Meehl, 1955). Understanding that seniors represent a specific sub-population, and that there is a negative fit between predictions and subsequent data, may suggest that the current version of the DPS-G be discouraged for use with older Canadian adults age 60 and over. That is, the test does not measure the construct variables adequately. Perhaps this is a strong declaration to make on the basis of only one study. However, the statement "validity is what the test measures and how well it does so" cannot be taken lightly considering how many differences in the way validity is conceptualized by different authorities (Gray, 1997). This does not indicate that the DPS-G could not be modified to include other particular dimensions of deterrents to participation by seniors. In modifying the DPS-G, using a gerontological perspective may be useful. Presently, the test should be restricted to use by researchers as an exploratory tool until some degree of validity can be established.

### Areas for Further Research

There are several suggestions for further research:

1. There is a need for replication of the present study. That is, the stability of the identified variables must be ascertained through replication with similar seniors. Other variables may be determined through the use of more diverse samples of low-literate seniors with differing socio-demographic characteristics such as those who reside in rural areas. Statistics Canada (2003) found that small towns and rural areas across Canada had older populations, and that suburban populations are aging more rapidly than those in the larger municipalities. There is a need to investigate more diverse groups of seniors, especially the Aboriginal older adult. Over 6% of seniors belong to visible minority groups in Canada (Statistics Canada, 2001). This is likely to increase given the increase in immigration patterns. This exploratory study represents an initial attempt to address the needs pointed out by Darkenwald (1981), Scanlan (1986), and Fingeret (1982, 1991) for replication using the DPS-G with different subgroups of older adults or populations.

2. Though the decline in document literacy level is steady between the age of 25 and 60, for prose and quantitative literacy the decline is marginal over the same age span but changes occur shortly after the age of 65. Willms (1997) found that all three domains of literacy decline as age increases. The author, however, refers to

cohort effects and not age effects indicating that the decline is associated with the educational attainment of individuals of different ages (i.e., a cohort effect) and not with aging per se (i.e., an age effect). As a result, it would be valuable to investigate the impact of seniors' socio-economic status, such as age and educational attainment, on all three domains of literacy described by the IALS (OECD, 1994).

3. The results of a qualitative inquiry would contribute to the development of new and relevant items for the DPS-G. Examples of new items that could be included on the DPS-G are "Because I'm on a reduced pension", "Because of poor vision", and "Because the instructor had no tolerance for older people".

4. There is a need to further develop the participant/non-participant profile of the adult learner over the age of 60. Understanding the effects of a variety of socio-demographic variables related to aging and participation and distinguishing the older atypical participant/non-participant adult learner is essential. Attention has been given to instrumental work-related reasons for learning and this has created a large database of information on participation studies involving younger adults. However, there is a need to identify the characteristics of an older participant/non-participant population, particularly as it relates to participating in leisure and learning activities during the pre- and post-retirement phase. A possible line of inquiry could include employment-related factors such as the category of seniors' occupation, for example "professional", and employment-related perceptions such as the satisfaction with one's post-retirement status or identity. Another possible line of inquiry could include social participation factors.

5. In refining the DPS-G, factor analysis could help uncover new dimensions of deterrents to participation that are more relevant to seniors' lives. Factor analysis can assist researchers in identifying descriptive categories that reflect the changes in complex patterns of behaviour or relationships in a variety of situations (Anastasi, 1976). Since non-participation can vary according to experiences, the deterrent factors that were retained in the DPS-G may not provide the best measures of deterrents for older adult learners. New underlying descriptive categories such as social participation, health, aging, retirement, leisure, and informal learning contexts need to be explored.

6. In order to understand the characteristic of an

older adult participant or non-participant, there is a need to study age-related situational variables including the effects of physical health, transportation, rural versus urban living, disabilities, marital status, widowhood, death of a loved one, occupational status, and number of dependents. However, and perhaps more importantly, it may be more beneficial to use a gerontological perspective when investigating these forces. That is, it is difficult to describe older adults' participatory behaviour from within the field of adult education.

7. There is a need to examine the influence of seniors' social groups on participation. More specifically, these influences include the relationship between social interaction, social cohesion, and seniors' participation in formal and informal adult learning activities and their various outcomes. It would certainly be tempting to explore the inclusion of these social dimensions as part of a modified version of the DPS-G.

8. Finally, and perhaps more important, we need to have a closer look at the effect of informal learning contexts and type and amount of leisure on the non-participation of older adult learners. This may help us solve the SES mystery in this study which is the lack of explanation among seniors' SES, literacy skills, and participation. According to Livingstone (1998), learning can occur in three different contexts: (1) Formal, such as preschool to graduate school; (2) Non-formal, such as organized educational programs outside the formal school system (e.g., cooking classes, computer training programs); and (3) Informal, where there is no educational institution, authorized instructor, or prescribed curricula. Livingstone (1998, p. 51) further differentiates an informal learning context from formal and non-formal learning as "any activity involving the pursuit of understanding, knowledge or skill which occurs outside the curricula of educational institutions, or the course or workshops offered by educational or social agencies." Under this typology, the participation of seniors in adult education could be understood as learning informally because they commonly prefer to use other sources of learning such as watching television, volunteering, or reading the newspaper, and from other sources such as friends and/or family members (McGivney, 1996). By engaging in informal activities, older adults continue to learn on their own (Aslanian & Brickwell, 1980). It may be that informal learning activities are more important predictors of literacy skills than formal educational attainment.

Currently, we don't know if the participation of seniors in informal learning contexts impacts literacy skills. This needs further investigation.

9. There is a need to study the impact of social networks on the different types of learning contexts among the undereducated older adult learner. Fingeret (1983a) argued that many individuals learn due to their rich social networks. The IALS (OECD, 1997) found that a large percentage of the undereducated respondents in the sample were very much engaged in informal modes of learning. As a result, it would be interesting to compare the impact that seniors organizations, volunteer groups, family members, and friends have on the undereducated older adult and learning.

10. In regards to leisure, the IALS (OECD, 1997), reported fluctuations between low literacy age groups indicating that the discrepancy between seniors and the younger age groups may in part be explained by the greater leisure time available to seniors. This notion has never been tested before, but it has been implied by other researchers (Laslett, 1989; Lowy & O'Connor, 1986). The argument has been that since seniors usually exercise fuller autonomy in self-fulfillment, they engage in learning activities for personal interests and leisure. Since most seniors are out of the paid workforce, the emphasis is on freedom, autonomy, individual growth and self-actualization in that they take part in learning activities for their own sake and not for the sake of furthering career objectives. This would support Findsen's (2001) claim that the focus is on the expressive rather than the instrumental character of the older adult learner.

11. Income may be a weak predictor of older adult learners' participation. The IALS (OECD, 1997) supports this assumption because income is not stable over time. Obtaining data on sources of seniors' income is complicated because many seniors do not want to reveal this information. Those who are retired may receive public and/or government pensions as their only source of income, yet there may be many seniors who receive supplementary incomes from other non-disclosed sources, such as bonds, mutual funds, and/or real estate investments. Hence, the effect of income on seniors' participation is difficult to assess.

12. Finally, while there were slightly more female than male respondents in this study, group means were insignificant. We should have expected a significant difference since the literature indicates that women have a higher rate of participation in educational activities

(McGivney, 1996). Therefore, we need to examine the role of gender on non-participation more closely.

### Concluding Remarks

The mode of distance learning is a significant factor in seniors' participation and access to adult education (Carlton & Soulsby, 1999). Two reasons for its significance can be cited. First, many seniors cannot participate or access adult learning activities because of age-related situational barriers, such as in the case of disability preventing adequate mobility, or one's limited access to public transportation. Second, the traditional formal educational approach in designing and delivering adult education programs, such as meeting the needs of adults participating in the workforce, has dominated the field of adult education in the past. Such an approach has been termed the "needs-based approach" to learning (Findsen, 2001). The rationale behind the "needs-based approach" can be linked to the economic, political, and socio-cultural forces of a society (Cross, 1981). For example, adults need to develop new skills in order to compete in the labour market. While the "needs-based approach" emphasizes the instrumental and progressive characteristics of younger adults (e.g., one's career aspirations), it does not explain or recognize the humanistic, expressive characteristics of older adult learners. In other words, seniors' reasons for not participating in adult education can be linked to the inability of formal educational institutions to recognize and address older adults' learning needs, such as learning for interest or pleasure. Hence, the learning goals of older adults are better achieved by meeting their "expressive needs". McClusky (1974) lends support to this notion indicating that expressive needs are characteristic of older adult learners in that they are no longer interested in learning to pursue a career or obtain a promotion. In other words, program planners in adult education and/or adult educators should realign the modes of distance learning to seniors' "expressive" rather than "instrumental" reasons for learning.

Finally, we cannot continue to believe that older adult learners can only be assisted through formal schooling programs. Perhaps retirement and leisure activities can account for the SES discrepancies that were found in this study and not reported in related literature. That is, seniors' participation increases when exiting the workforce because they have more time and not decreases as the literature suggests. In any

event, and as Findsen (2001) argues, it may be more useful to analyze seniors' non-participation in terms of the social and material conditions in which older adults engage in life.

### References

- Alexander, M. Wayne (1998). "Older Learner's Preferences for Educational Activities," *Proceedings of the Fifth Annual Meeting of the American Society of Business and Behavioral Sciences, Las Vegas, NV, 154-161.*
- Anastasi, A. (1976). *Psychological testing (4th ed.)*. New York: Macmillan.
- Aslanian, C. B., & Brickwell, H. M. (1980). *Americans in transitions: Life changes as reasons for adult learning*. Princeton, NJ: College Board Publications.
- Beder, H. (1990). Reasons for nonparticipation in adult basic education. *Adult Education Quarterly, 40(4), 207-218.*
- Beder, H., & Valentine, T. (1990). Motivational profiles of adult basic education students. *Adult Education Quarterly, 40(2), 78-94.*
- Boshier, R. (1986). "Proaction for change: Some guidelines for the future." *International Journal of Lifelong Education, 5(1), 15-31.*
- Carp, A., Peterson, R., & Roelfs, P. (1974). Adult learning interests and experiences. In *Planning Non-Traditional Programs*, K. Patricia Cross and John Valley (Eds.). San Francisco: Jossey-Bass, pp. 11-52.
- Cardenas, M. (2000). Motivations for and barriers against participation in adult education. Leonardo Project MOBA. *Adult Education and the Labour Market VI*. Seville, October 19-22.
- Carlton, S., & Soulsby, J. (1999). *Learning to grow older and bolder: A policy discussion paper on learning in later life*. Leicester, England: The National Institute of Adult continuing Education.
- Cookson, P. (1987). "The nature of the knowledge base of adult education: The example of adult education participation." *Educational Considerations, 14(2-3), 24-28.*
- Crompton, S. (1996). *The marginally literate workforce. Perspectives on labour and income. Statistics Canada Catalogue no. 75-001-XPE, (Summer), 8(2), 14-21.*
- Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychometric tests. *Psychological Bulletin, 52, 281-302.*

- Cross, K. P. (1981). *Adults as learners*. San Francisco: Jossey-Bass.
- Daniel, D. E., Templin, R. G., Shearon, R. W., (1977). The value orientations of older adults toward education. *Educational Gerontology* 2(1), 33-42.
- Darkenwald, G. G., & Merriam, S. B. (1982). *Adult education: Foundations of practice*. New York: Harper and Row.
- Darkenwald, G. G., & Valentine, T. (1985). Factor structure of deterrents to public participation in adult education. *Adult Education Quarterly*, 35(4), 177-193.
- Findsen, B. (2001). Older Adults' Access to Higher Education in New Zealand, *Journal of Access and Credit Studies*, 3(2), 18-27.
- Fingeret, A. (1982). *The illiterate underclass: Demythologizing an American Stigma*. Unpublished doctoral dissertation, Syracuse University, Syracuse, NY.
- Fingeret, A. (1983a). Social network: A new perspective on independence and illiterate adults. *Adult Education Quarterly*, 33(3), 133-146.
- Fingeret, H. A. (1991). Meaning, experience and literacy. *Adult Basic Education*, 1(1), 4-11.
- Gray, B. T. *Controversies regarding the nature of score validity: Still crazy after all these years*. Paper presented at the annual meeting of the Southwest Educational Research Association, Austin, January, 1997. Texas A & M University 77843-4225.
- Harris, Louis, and Associates (1975). *The myth and reality of aging in America*. Washington, D. C.: The National Council on the Aging, Inc.
- Hayes, E. R. (1988). A typology of low-literate adults based on perceptions of deterrents to participation in adult basic education. *Adult Education Quarterly*, 39(1), 1-10.
- Henry, G. T., & Basile, K. C. (1994). Understanding the decision to participate in formal education. *Adult Education Quarterly*, 44(2), 64-82.
- Institute for Employment Studies. *Learning in later life: Motivation and impact*. DES Priced Publications Research Report RR183, February 2000. ISBN 1 84185 199 X. Nottingham, UK.
- Jarvis, P. (1985). *The sociology of adult and continuing education*. London: Croom Helm.
- Johnstone, J., & Rivera, R. (1965). *Volunteers for learning: A study of the educational pursuits of American adults*. Chicago: Aldine.
- Laslett, P. (1989). *A fresh map of life: The emergence of the Third Age*. London: Weidenfeld & Nicholson.
- Livingstone, D. W. (1998). *The education-jobs gap: underemployment or economic democracy*. Boulder, CO: Westview Press.
- Lowe, Graham S. (1997). *Computers in the workplace: Perspectives on labour and income*. Statistics Canada Catalogue no. 75-001-XPE, 9(2), 29-36.
- Lowy, L., & O'Connor, D. (1986). *Why education in the later years?* Lexington: Lexington Books.
- Martindale, C. J., & Drake, J. B. (1989). Factor structure of deterrents to participation in off-duty adult education programs. *Adult Education Quarterly*, 39(2), 63-75.
- McClusky, H. Y. (1974). Education for aging: The scope of the field and perspective for the future. In S. Grabowski, & W. D. Mason, (Eds.), *Learning for Aging*. Washington, D. C.: Adult Education Association of the USA.
- McGivney, V. (1996). *Staying On or Leaving the Course*. Leicester: NIACE.
- McPherson, B. (1990). *Aging as a social process*. Toronto: Butterworths.
- Merriam, S. B. (1987). "Adult Learning and Theory Building: A review." *Adult Education Quarterly*, 37, 187-198.
- Merriam, S. B., & Simpson, E. L. (1995). *A guide to research for educators and trainers of adults* (2nd ed.). Malabar, FL: Krieger Publishing.
- Miller, M. B. (1995). Coefficient alpha: A basic introduction from the perspectives of classical test theory and structural equation modeling. *Structural Equation Modeling*, 2(3), 255-273.
- Moss, M., & Lawton, P. (1982). Time budgets of older people: A window on four lifestyles, *Journal of Gerontology*, 37(1), 115-123.
- National Advisory Council on Aging (1999). *Challenges of an aging society*. Minister of Public Works and Government Services Canada, Ottawa. Catalogue no. H88-3/28-1999E.
- Organisation for Economic Co-operation and Development & Statistics Canada (1994). *Literacy, economy and society: Results of the first International Adult Literacy Survey* (Catalogue No. 89-545E). Paris.
- Organisation for Economic Co-operation and Development & Statistics Canada (1997). *Literacy skills for the knowledge society: Further results from the International Adult Literacy Survey* (Catalogue No. 49641). Paris.
- Pearce, S. D. (1991). Toward Understanding the Participation of Older Adults in Continuing Education. *Educational Gerontology*, 17, 451-464.

Rubenson, K. (1977). *Participation in recurrent education*. Paris: Center for Educational Research and Innovations. Organisation for Economic Cooperation and Development.

Scanlan, C. (1986). *Deterrents to participation: An adult education dilemma*. (Report No. IN 308). Columbus, OH: National Center for Research in Vocational Education. (ERIC Document Reproduction Service No. ED 272 768)

Scanlan, C., & Darkenwald, G. (1984). "Identifying deterrents to participation in continuing education." *Adult Education Quarterly*, 34 (3), 155-166.

Statistics Canada (1998). *The value of words: Literacy and economic security in Canada*. Ottawa; Catalogue No. 89-552-MPE, no.3.

Statistics Canada (2001). Division of Aging and Seniors, No. 8-29. Retrieved April 25, 2003, from [http://www.hc-sc.gc.ca/seniors-aines/pubs/seniors\\_at\\_glance/poster1\\_e.html](http://www.hc-sc.gc.ca/seniors-aines/pubs/seniors_at_glance/poster1_e.html)

Statistics Canada (2003). *Education in Canada: Raising the standard. 2001 Census: analysis series*. Statistics Canada Catalogue No. 96F0030XIE.

Statistics Canada & Human Resources Development Canada (1998). *At risk: A socio-economic analysis of health and literacy among seniors*. Statistics Canada Catalogue No. 89-552-MPE, No. 5.

Toughill, E., Mason, D., Beck, T., & Christop, M. (1993). Health, income, and post-retirement employment of older adults. *Public Health Nursing*, 10(2), 100-107.

Valentine, T., & Darkenwald, G. (1990). *Deterrents to participation in adult education: Profiles of potential learners*. *Adult Education Quarterly*, 41(1), 29-42.

Wright, R. E. (1995). Logistic Regression. In L. G. Grimm and P. R. Yarnold (Eds.), *Reading and understanding multivariate statistics*, 217-244. Washington DC: American Psychological Association.

Willms, J. Douglas (1997). *Literacy skills of Canadian youth, International Adult Literacy Survey*, Statistics Canada Catalogue No. 89-552-MPE, No. 1, Ottawa, 33p.

Zimmerman, D. W., Zumbo, B. D., & Lalonde, C. (1993). Coefficient alpha as an estimate of test reliability under violation of two assumptions. *Educational and Psychological Measurement*, 53, 33-9.

## HAVE YOUR SAY ON SKILLS FOR LIFE

The Impact of the Skills for Life strategy on teachers and trainers

National Research and Development Centre for Adult Literacy and Numeracy (NRDC, [www.nrdc.org.uk](http://www.nrdc.org.uk)), would like to invite you to take part in a national research project which will examine the impact of the **Skills for Life** strategy on teachers, trainers and their organisations.

The three-year study is the first major project to examine **Skills for Life** on a national scale, and aims to interview at least 1000 teachers. This is your chance to have a say about how the Strategy affects you, where the Strategy is and isn't working, and how it can be developed so as to improve teaching and learning in adult literacy, numeracy and ESOL. The results of the survey will be taken seriously by Government, making it even more important that you make time to contribute.

The NRDC has commissioned an independent agency, NOP Social and Political, to carry out the fieldwork, and the study is funded by the DfES. The first stage includes either a face-to-face interview, taking place at a time that suits you, or a web-based questionnaire that you can choose to complete at home; both options take about an hour. Questionnaires will be treated in confidence and all respondents are guaranteed anonymity.

If you would like to get involved, please contact John Vorhaus, Associate Director (Research) at NRDC (email: [j.vorhaus@ioe.ac.uk](mailto:j.vorhaus@ioe.ac.uk); tel. 020 7612 6432).

# Reviews

**Ellery, V. *Creating Strategic readers. Techniques for Developing Competency.* International reading Association, 2005. ISBN 0-87207-561-3**

**Judith Kidder**

*Judith Kidder is a Senior Tutor in the PCET Department of the School of Education at the University of Huddersfield.*

This book has been produced as a result of recent US legislation relating to reading. Ellery begins by making the distinction between specific reading skills and reading strategies. Reading skills include, for example, knowing letter sounds, whereas strategic reading emphasises the need for the reader to develop thinking processes relating to how, when and why particular skills might be used.

This metacognitive approach makes explicit the strategies used by successful readers and, as a consequence, teachers of reading are required not only to model these strategies explicitly but also to develop their own questioning techniques to enable learners to engage in thinking about the reasons behind the use of specific skills and strategies in reading.

The book is structured around five components of reading instruction: phonemic awareness, phonics, fluency, vocabulary and comprehension. Each chapter is structured in the same format and focuses separately on each of these five components. Within each of the five identified components, specific strategies are further highlighted and a selection of teaching and learning activities suggested for each strategy. The chapter on Phonemic Awareness, for example, includes strategies such as rhyming, isolating and identifying phonemes, segmenting phonemes and manipulating phonemes.

At the start of each chapter, there is an overview of the context and content of the chapter, which is developed further as a rationale for each of the strategies. Supporting reading materials are also suggested. Following this strategic overview, there are detailed suggestions for teacher statements, questions and prompts which are intended to encourage readers to develop metacognitive strategic thinking skills in relation to reading. These introductions are then followed by a range of teaching and learning

activities introduced in a standard format which includes a learning objective, materials required and a suggested level for the activity based on an order of stages of reading: emergent reading, early reading, transitional reading and fluent reading. There is also an indication of whether the activity is appropriate for second or other language learners along with reference to multiple intelligences involved in the activity.

*Creating Strategic Readers* is comprehensive, although not completely prescriptive, in its approach to developing reading. It suggests possible structures for lessons on a whole group, small group and individual basis alongside relevant activities before, during and after reading. There are, however, some potential barriers to the use of this material in a UK adult literacy context.

Firstly, the curriculum and theoretical references may be unfamiliar to UK teachers, as the activities are directed towards use in the US equivalent of the Literacy Hour currently in practice in UK primary schools. Although comparisons can be drawn with the UK National Literacy Strategy and associated materials, it might be difficult for UK teachers to use this book alongside a different curriculum structure. This may also cause problems in the area of adult literacy as there is a correlation between the National Literacy Strategy and the Adult Literacy Core Curriculum.

In addition, the US context may be problematic for teachers unfamiliar with US education systems and terminology. As an example, it was not immediately obvious how to locate the meaning of 'ELL' which is identified in all the activities. This refers to English Language-Learners and it might be inferred that this may equate to English as a Second or Other Language (ESOL) in the UK education system.

Finally, as the materials are intended for use in schools, the content of some activities may not be appropriate for adult learners and equally for the range of contexts in which adult literacy learning takes place.

The book also requires some effort to become familiar with the layout. The diagrams, table and matrices in the introductory chapter only become meaningful after gaining a thorough knowledge of activities detailed in later chapters. Although it is clearly stated that there is no intention to be prescriptive in the order of the

activities, it might be difficult to tailor an individualised programme without a thorough knowledge of all of them. This is not a resource to 'dip into'. In this context, it would have been useful to have a clearer overview of the specific contents of each chapters in order to locate materials for this purpose.

Generally, there are useful initial assessment checklists for each of the stages of reading and each of the strategies based on teacher observation of individual readers rather than the test based approach more familiar to the UK Adult Literacy Core Curriculum. These assessments were, however, difficult to locate as appendices at the end of the book are alongside the photocopiable teaching materials. The assessment strategies at the end of the chapters on the five components of reading seemed useful as tools which emphasise observation and engagement of individual readers. However, the availability of these materials might prove difficult for readers outside the US and suggest a greater level of complexity in recording learner progress and achievement than may currently be the case in some UK Literacy programmes.

Of particular use to new and developing teachers are the sections on teacher talk, questioning and prompts. These are sufficiently detailed to enable new teachers to develop confidence in engaging learners in meta-level language and there is a comprehensive reference list although a glossary would be useful for non US readers.

Overall then, *Creating Strategic Readers* is a useful resource for developing not just functional reading skills but also wider strategies for interacting with text, providing the difficulties in navigating the text, translating (or ignoring) the American references and adapting materials for adult learners can be overcome.

## **FOUR BIDDEN PLAYING CARDS** **Association of Teachers of Mathematics**

### **Liz Peace**

*Liz Peace is Senior Tutor (Numeracy) for the Wakefield Adult & Community Education Service*

As with many mathematical games, there are a variety of ways in which 'Four Bidden' can be played. Overall, however, the aims of the Association of Teachers of Mathematics are to encourage the understanding & enjoyment of mathematics and to promote the exploration of new ideas and possibilities.

In general, the various suggestions on how to play were clear although suggestion 4, the discovery of the 'hidden' word on the left hand side of the card by drawing seems rather ambitious for most groups. In addition, a number of both 'forbidden' and 'main' words are only common to a vocabulary associated with GCSE courses rather than Level 1 or 2 numeracy. However, all the cards are clearly printed and the words are of a size that would make them suitable to students with minor visual impairments.

I took the opportunity of trying out Suggestion 1 in a Level 2 workshop where a number of new learners had joined an already established group and the game worked well as an icebreaker. In this suggestion, players are divided into two teams and take it in turns to describe the word on the left hand side of the card without using the word itself or any of the 'forbidden' words on the right hand side. A number of the learners found that the game was not as challenging as they had expected: they could describe the words quite easily using language they were already familiar with and the forbidden words were not a hindrance. The learners felt that restricting the words used to mathematical words might make the game harder but also realised that this would be difficult to implement. Unfortunately, a lack of time meant that we were not able to try out suggestion 3 where players have to guess the 'forbidden' words which most learners felt would have encouraged players to use the relevant mathematical terms.

Overall then, the general feeling among the learners was that suggestion 1 could be usefully deployed as an icebreaker at the beginning of a year when everyone was new and suggestion 3 would be better left for later in the year when learners had become more familiar with the mathematical terms required.

**TALKING DICE Talking Dice Ltd  
Vanessa Goddard**

*Vanessa Goddard has worked with adults with learning difficulties/disabilities or mental health issues for the past eight years and, for the past two years, has been involved in teaching and developing LifeSkills Classes in this area of teaching & learning. She is currently employed by Wakefield Adult & Community Education Service.*

Talking Dice are designed to develop speaking and listening skills in a wide range of teaching situations including learners with special needs. The pack also suggests that the dice could be used by students engaged in learning a second or foreign language.

My first impression of the game, however, was that the dice themselves were too small to be practical they would need to be about twice their current size to allow for the actual dexterity of some of the learners they are aimed at and to make the illustrations more easily visible and understandable. That having been said, the instructions themselves are both clear and concise and allowed plenty of opportunity for the game to be developed and adapted for particular groups. It is particularly useful that the dice can be used for both literacy and numeracy classes as, at pre-entry through to Entry 1, teaching and learning easily 'strays' between the areas.

Possible literacy activities at this level would be memory stimulation where pre-entry/entry learners could be encouraged to remember as many of their own thrown dice as possible and storytelling which, as part of the curriculum, could be used to develop group work. Learners here would collectively use their speaking and listening skills to tell a story from the dice rolled. Potential numeracy activities include making tally charts as a group exercise where learners of different ability levels could take turns to throw a selection of dice and/or record the information.

In a class of adults with mental health issues it can be difficult to engage the students in group work and to encourage them to use their imagination to create a piece of writing. In this context the dice could be used to generate the information to write a story. By then piecing together the information from the suggested

activities of story telling, grammar and building a personal profile, students could roll each die to build up their personal stories which could be written up individually.

Overall, if the dice were of a more appropriate size, they would provide a beneficial and cost effective resource for learners in this particular target group.

## Why not write something for the RaPAL Journal?

This is an invitation to anyone involved in the field of adult literacy, numeracy and ESOL education to write and share their ideas, practice and evidence with RaPAL readers. The RaPAL network includes approximately two hundred managers, practitioner researchers, researchers, tutors, students and librarians in adult, further and higher education in the UK. It also has overseas members in Canada, USA, New Zealand, Australia, South America, Europe and Africa.

The RaPAL network produces a journal three times a year – winter, spring and summer – for contributions linking research and practice. RaPAL welcomes articles, reviews, reports, commentaries, letters and cartoons which reflect the range of activities and interests of those involved in this field. By writing for this network you will have the opportunity to refine your ideas and disseminate to the field.

For RaPAL, research involves asking questions, trying to answer them, asking other people, recording what they say, developing ideas, changing them, and writing and sharing ideas in many different ways. We think that these processes should be open to students and tutors as well as to paid researchers. They often underpin the day-to-day reflective and evaluative work of practitioners but are not usually recognised as research activity.

### Journal Structure

We have decided to retain the three section structure introduced in 2002-3, as a means of addressing the emerging needs in this field:

1. Ideas for teaching  
*Descriptive and reflective pieces on teaching and learning to meet the needs of current teachers in this field. The contributions must demonstrate democratic practice.*
  2. Developing Research and Practice  
*An open-ended category for a varied range of contributions. We want to include articles which show people trying out ideas, pushing back boundaries alongside analysis and critique*
  3. Research and Practice: Multi-disciplinary perspectives
- A section for more sustained pieces of analysis about research, policy and practice which will have refereed journal status

We welcome contributions for each of these sections and are happy to discuss your ideas and proposals with you. We want the RaPAL Journal to continue its vibrant tradition of publishing views from all parts of the field.

### Guidelines for Contributors

#### General

1. Writing for RaPAL must be in a readable, accessible style aimed at a diverse and international readership.
2. If you are writing about individuals or groups you must follow the usual ethical guidelines, seeking permission whenever possible and in all cases representing people fairly.
3. We are always looking for articles which link research and practice in some way. There are many possibilities and we do not set hard and fast rules about how this should be done.
4. RaPAL articles should encourage readers to question dominant or taken for granted views of literacy, numeracy and ESOL. We would, for example, challenge views which fail to acknowledge the abilities of learners to be actively involved in developing and evaluating practice.

#### Specific Pointers

1. When you submit your work, please indicate the intended section for publication.
2. Articles should have a title with clear headings and subheadings; and must contain a clear introduction, indicating the scope of the piece.
3. If you write for section 3, the article should:
  - relate to the practice** of learning or teaching adult literacy (in any language)
  - relate to research**: either by itself being a report of a research study and/or showing links to related research work;
  - provide 'critical' analysis** of the topic, involving theoretical underpinnings; and
  - be coherent** with a clear structure, explanation of any terminology, use of examples and the usual referencing conventions ( Use the Harvard referencing system and make sure that all references are in alphabetical order and complete).
5. Length- Articles should be 1,000- 2500 words for sections 1 and 2 and not more than 4000 words for section 3. These limits do not include any accompanying references and bibliographies. Reviews and reports should be 50-800 words.

6. Illustrations and graphic material are much appreciated. Please consult the editor about preferred formats.
7. Your article must be submitted both in hard copy and in electronic form. Please send it word processed, double-spaced, on A4 paper and with numbered pages. The electronic versions must be sent as Word files attached to emails. If we do not receive both versions, we cannot consider the paper for publication.
8. Please provide a title page with your name, title, and contact details (postal address, e-mail address and phone number). It is very important that you also provide a short 2-3 line biography to accompany the article. We like to encourage correspondence between readers and writers and if you would like readers to get in touch with you, please provide contact details at the end of the article.

### **Editorial Procedures**

1. All contributions are peer reviewed by researchers and practitioners in the Editorial Group. The reviewing for section three is done by an experienced researcher and two additional researcher practitioners and focuses on the criteria noted above.
2. Feedback is provided by the editor within eight ten weeks of receiving your text and constructive comment (and notes to be of use in its development) are made if appropriate.  
If the article is accepted, once the amendments have been made, the editor will work on a final edit. We may make minor alterations ourselves and the final version will be sent to you for checking before it goes to print.

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The address for subscriptions or for written contributions is currently:

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