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Enhancing reading skills and reading self-concept of children with reading difficulties: Adopting a dual approach intervention

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ABSTRACT

This article describes the need for, and the structure and contents of, a reading program to help support children disadvantaged by reading difficulties. The program, delivered by trained and supported volunteers, lasts for 15 weeks. It uses a novel dual approach which aims to improve students' reading skills and simultaneously enhance their reading-related self-concepts. As there is scant literature available on how to implement such a program, this article aims to address that limitation by demonstrating to educators how such a dual approach to enhancing reading skills and reading self-concept can be operationalized.

As noted in the 2013 report of the Organization for Economic Co-operation and Development (OECD; Thomson, De Bortoli, & Buckley, 2013), that evaluated the reading performance of teenagers from 65 countries, Australia is falling behind other industrialized countries in terms of the ever increasing gap in reading attainments between their most advantaged and disadvantaged children. Moreover, the Australian Curriculum, Assessment, and Reporting Authority (ACARA, 2010) report that reading difficulties affect up to 30% of Australian primary school children. Such a large percentage of children with reading difficulties constitutes a significant problem as the effects of reading failure are devastating for individual children, Australian society, and the international community.

Reading failure has been linked to poor academic performance (Allsopp, Minskoff, & Bolt, 2005; Challen, King, Knapp, & McNally, 2008; Lerner, 2000), anxiety and depression (Maugban, 2003; Sideridis, 2007; Sideridis, Morgan, Padeliadu, Botsas, & Fuchs, 2006), high unemployment (ABS, 2006; Young & Browning, 2005), increased risk of turning to crime (Wolford, 2000), and increased risk of alcohol and drug dependency (McCrystal, 2008). Moreover, Entwisle, Alexander, and Olson (2005)

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demonstrated that young children are launched into *achievement trajectories* when they start formal schooling or even before, and the patterns of these early trajectories are highly stable over childhood and adolescence. In education research there is broad support for the Mathew Effect – early small differences in academic outcomes predict large subsequent differences (Stanovich, 1986).

In sum, reading difficulties, if not tackled at early stages, have dire consequences. The futures of children with reading difficulties are compromised as reading failure restricts the opportunities available for individuals to participate in the workforce and contribute to the growth of a nation in a technologically advanced world market. To address the early onset of reading difficulties for children, a broader multidisciplinary approach needs to be taken, including applications of strong psychological, social science, and educational research. There is also a need to consider the revolutionary emphasis on positive psychology that focuses on how healthy and productive individuals seem to get the most from life. An innovative psychosocial reading intervention, Reading for Life (R4L), has been designed to offer potent new solutions for strengthening reading interventions by combining cutting-edge advances in self-concept interventions along with reading skills training. As there is scant literature available on how to implement such a program, in this article we aim to address that limitation by demonstrating to educators how to operationalise the dual approach of enhancing reading skills and reading self-concept simultaneously. The article begins with a description of the structure and contents of the R4L program, highlighting its theoretical underpinnings, and concludes with a summary of evidence of the program's success, illustrating how R4L can serve as a vehicle to successfully counteract reading difficulties in schools worldwide using trained volunteers.

Structure and Content of R4L

Volunteering reading programs in schools are not new. R4L, however, is unique for many reasons. R4L aims to complement the current provisions for children in schools by offering one-to-one intensive support based on sound educational research and practice. R4L goes further than many reading programs that simply have volunteers reading with children. The goal is not only to enhance the reading skills of participating children but also to encourage them to feel good about themselves as learners (i.e., a healthy self-concept about reading). Children work through a series of engaging activities to improve reading skills of sight word identification, phonological awareness, reading accuracy, and reading comprehension.

R4L was designed to capitalize on theories from reading and self-concept research to produce an effective reading intervention that takes into account both cognitive and psychosocial factors. Reading activities, based on best-practice research, form the basis of the intervention, as children with reading difficulties learn core skills for literacy. Phonological awareness, a strong predictor of future reading success (DEST, 2005; NICHD, 2000; Rose, 2006) and sight word identification, an important skill to reduce cognitive load when reading (Adams, 1990) comprise two large components of the program. Metacognitive strategy training during supported reading activities (Rankin-Erickson & Pressley, 2000; Purdie & Ellis, 2005) is also included, by providing the children with a bookmark containing reading strategies. Throughout these activities, attributional retraining and performance feedback are utilized to develop children's reading self-concept, specifically their perceptions of their abilities and feelings about those abilities (Brophy & Good, 1986; Craven, Marsh, & Debus, 1991). The structure and contents of the intervention have therefore been informed by research findings in education and educational psychology pertaining to children's reading and reading self-concept.

Hence, the program includes aspects of both reading and related self-concept development. The content of the program provides routine and predictability for children, yet contains a variety of activities to encourage engagement and interest. To maximize the impact of the program each session is structured to incorporate specific skills required for successful reading. Systematic evaluations of mentoring programs have provided evidence that the relationship between adults and children in a mentoring capacity, as with R4L, has an effect on children's life potential (Du Bois, Holloway, Valentine, & Cooper,

2002). The children work with a trained volunteer (referred to as a 'reading buddy') each week for fifteen weeks throughout R4L, receiving support and encouragement for their efforts in reading.

Wide Involvement in R4L

There are many key stakeholders involved in the R4L program: the children, the volunteers (known as reading buddies), the trainers, the teachers, and the parents. One of the key elements for success in R4L is the relationship between the volunteer reading buddy and the child. Careful matching of buddies based on gender and similar interests fosters this relationship. It begins with assessing children's reading skills and self-concept and culminates in a final celebration party at school to acknowledge children's successful participation in the program. The initial assessment is crucial because when attempting to address the disadvantages of the children, it is important to first identify how they differ from their more able peers.

The reading buddies, the volunteers who deliver the R4L program, participate in a three-hour training session to learn how to use the materials. The training generally occurs after the pre-testing in the school so the trainer can talk about the school and children and help to situate the buddies to the individual school environment and specific children in the program. The buddies are taken through each activity, step-by-step, and have opportunities to practice the games with each other. Throughout the program, buddies are able to contact a reading teacher or Educational Psychologist for support. A further two-hour support session is available to reading buddies half way through the program to discuss any difficulties, revise sections of the program, and share experiences. This training and support helps to ensure R4L is implemented correctly. A key staff member from the school may attend the training session. Their attendance helps the buddies feel knowledgeable about the school and signifies the value that the school places on the program.

Reading buddies plan and then attend an orientation session at the school to meet their children, the classroom teachers, and the children's parents. This occurs prior to the weekly sessions. During the orientation session, the school principal discusses the routines of the school with the buddies to help them feel at ease within the school environment. The buddies also host a post-program party for the children to celebrate their achievements. The children receive a book from their reading buddies to foster a continued love of reading.

R4L also actively involves families and classroom teachers. Classroom teachers and parents are invited to a school orientation session where children first meet their reading buddy. They are also invited to the end-of-program celebration. During the program, children and reading buddies use a communication book to provide feedback to teachers and parents.

Assessing Reading Difficulties

Classroom teachers are asked to identify children they believe would be suitable for the program who do not have any significant cognitive, behavioural, or mental health issues. These children often do not receive any specific additional funding support. Children participating in R4L are in the target age band, that is, Years 2 to 4 in New South Wales (NSW; but may be Years 3 to 5 in other states of Australia) and Years 3 to 5 (New Zealand) and are experiencing difficulty acquiring literacy skills. All children have written parental consent to participate in the program.

Each child, identified by the school, is tested before the program using standardized tests to determine their learning strengths and weaknesses and to provide a baseline for a final test. The testing is critical to monitor how participating children benefit from the program. Participating children are assessed by a psychologist or teacher at the beginning and again at the completion of the program to identify areas of growth. The battery of tests used includes two dimensions: reading skills and self-concept. Reading skills are assessed using: (a) the Neale Analysis of Reading Ability (Neale, 1999); (b) the Sutherland Phonological Awareness Test (Neilson, 2003); and (c) the Burt Word Reading Test (Gilmore, Croft, & Reid, 1981). Self-concept is assessed using the Self-Description Questionnaire I (Marsh, 1990).

An Holistic Intervention Addressing Reading Difficulties

The central aspects of R4L are the intervention, a manual for the volunteers, activity materials, and training which prepares and supports the volunteers throughout the program's duration. The R4L manual describes the process of administering the intervention over 15 sessions, each of which last for 45 minutes, and contains all of the necessary resources to work with the children, except for the reading books (which are provided by the child's school). The R4L program is divided into six sections, named to represent a "race" to reading success: (a) Highlights (relationship between child and buddy); (b) Warm Up (sight words); (c) Stretching (phonological awareness); (d) The Main Event (reading); (e) Cool Down (transfer and generalization); and (f) Celebrating Effort/Ability (reading self-concept). Each of these activities is described below.

Highlights: Building a relationship.

In this initial section of R4L, volunteers begin to develop a working relationship with their buddy. The volunteers pick up the child from his/her class and move to the designated reading location in the school. They are encouraged to demonstrate to the children in their tone and body language that they are excited to see the child again. During this initial five minutes of the session, volunteers initiate a friendly conversation with the child, such as asking the child about what they were doing in class, their week, their hobbies and interests, and what activity they are looking forward to in the session.

Volunteers are provided with a list of statements to prompt discussion with the children. Volunteers can select one or two statements during the initial discussion each week to gain more insight into the interests of the child. Statements include "My favourite time of day is …" and "If I could be any age I wanted, I would be …" Volunteers are also encouraged to finish some of these statements so that the relationship with the child is reciprocal. Research clearly demonstrates the importance of teachers displaying interest in children's lives, and building warm teacher-student relationships. When this occurs, children experience enhanced emotional engagement in learning, reduced anxiety around learning, and higher student achievement (Croninger & Lee, 2001; Hughes & Kwok, 2006). For this reason, volunteers are encouraged to use the statements to build rapport with the child.

Warm up: Sight words.

Sight words are high frequency words, appearing regularly in written texts and often have irregular spellings, known as exception words (Moseley, 2004). Mastery of rapid sight word recognition develops independence in reading and enhances a child's sense of control over the text and their willingness to take risks when approaching new reading passages (Hay, 1995; Henderson, 1982). Sight word reading is an important inclusion in R4L. This is the second section of R4L, the first where reading skills are introduced. The R4L pack provides volunteers with a list of commonly used sight words. This list is drawn from the publication, The Instant Words (Fry, Kress, & Fountoukidis, 2004). The Instant Words are presented in order of their frequency of appearance in the English language. The first 100 words in this list represent 65% of words in the English language (Fry, 1980), and are the result of an extensive literature search. This frequency order reduces the need for volunteers to assess children's beginning level, as all children need to start at the first list, as these are the most important words to know by sight.

Volunteers are provided with a clear script to explicitly introduce the sight words and resources, such as a sight word list, blank flash cards, coloured markers, and a recording form. The explicit teaching script is the same each week, helping the child to focus on the individual words rather than the activity. The child reads from the master list of sight words contained in the R4L manual. The volunteers record the children's responses on the form provided. After eight errors have been made, reading stops and these eight sight words become the focus for the week's activities. These eight words are written on a blank flash card by the volunteer and then copied by the child. This pair of cards is then used for a matching task, where children have one set laid out in front of them and are asked to "point to /word/", "find the partner for /word/", "give me /word/" and play a series of traditional card games (snap, snail, memory,

concentration, fish, bingo) using flashcards. These sight word cards are sent home for practice each week in the back of a communication book (used to communicate with parents and teachers), along with the instructions for these card games. In each session the set of cards from the previous session is checked and then new words are added as necessary (dependent upon how many of the eight previous words have been mastered).

*Stretching: Phonological Awareness***.**

The stretching section was developed to reflect the strong predictive properties that phonological awareness has for reading competence (Juel & Meier, 1999; McNamara, Scissons, & Dahleu, 2005; Scarborough, 1998). The essential phonological awareness skills of rhyme, compound words, syllables, first sounds, last sounds, middle sounds, and vowel sounds have been included in their developmental sequence (Chard & Dickson, 1999; Ehri, Nunes, Stahl, & Willows, 2001). All children begin at rhyme and work their way through the activities. In each section there is a routine of sound identification and sound production. There is a script to introduce the skills, such as "Words rhyme when they sound the same at the end. Listen to these words: "pen and hen". These words rhyme because they both end in the sound /en/. Does men rhyme with pen and hen?" This is followed by five examples for the child to practice orally. Several card games (the same as those used in the sight word section) are then available for children to practice identifying the phonological awareness skill using a set of coloured playing cards, which have both the words and pictures printed on them. There is then a script for children to produce words with this phonological awareness skill, for example, "Tell me a word that rhymes with sun" and five examples for the child following this. More card games or specially designed game boards are available to provide practice for children in producing words with particular sounds. The scripts provide the explicit instruction necessary for children with reading difficulties (DEST, 2005; NICHD, 2000; Rose, 2006) to develop competence in critical phonological awareness skills, before having opportunities to practice these playing games (Charlton, Williams, & Mclaughlin, 2005; Etess, 2004). Volunteers are encouraged to work with the children at their own pace, providing them with the time they require to master each skill (Gredler, 2001).

Main event: Reading.

This is the primary purpose of R4L, for volunteer reading buddies to read with their child. Activities are included that can be used before reading, during reading, and after reading to ensure that the children develop strategies to read better. During reading, the volunteers are provided with a series of decoding strategies, the Reading Helper, to assist children when they reach a word they cannot read.

The pre-reading activities are presented in a chatterbox for the children to cut out and fold. A chatterbox, sometimes known as a fortune-teller, is a puppet object with folded flaps children use to answer questions. Prediction before reading a book stimulates interest and allows the child to establish a knowledge base and meaningful context before reading the text for the first time. In these prediction activities, children are encouraged to consider the front cover of the book and think about what type of book they may be about to read, such as whether it will be a truthful or factual text compared with a humorous fictional tale. Often known as activating background knowledge (Duke & Pearson, 2002; Gersten, Fuchs, Williams, & Baker, 2001), this strategy helps make the reading process positive and successful for children. During reading, the children have their own copy of the reading helper strategies, in the form of a bookmark, to guide their approach to decoding tricky words. This bookmark contains a range of metacognitive strategies, such as "Are there any sounds in the word I already know" for children to rehearse when reading. Strategy instruction has been found to be effective for children with a range of learning difficulties (Purdie & Ellis, 2005; Rankin-Erickson & Pressley, 2000). The children are also encouraged to take the bookmark home and read with their parents (Forness, 2001; Jitendra, Edwards, Sacks, & Jacobson, 2004; Swanson, 2001). Reading buddies are provided with helpful instructions to implement the reading section. They are encouraged to be attentive and show interest while the child reads. When a child gets stuck on a word, volunteers are advised to pause to give the child a chance to

solve the problem on his/her own (approximately 5 seconds). If the child does not read the word correctly, the volunteer then asks the child to read the questions on the bookmark to aid in decoding. The volunteer praises the child if the word is read correctly, naming the strategy used by the child.

On the back of the bookmark are a set of recall questions pertaining to when the story took place, where, who, and the order of events. These lower level comprehension questions, focusing on recall of details, encourage the children to remember the main events of the text. The focus of R4L is on improving the skills of reading, such as phonological awareness and sight words during the 15 sessions, and as such, recall of details is the extent of comprehension activities included within R4L.

In successive sessions, volunteers are encouraged to demonstrate good reading behaviours with their child. The children take their book home to practice with their parents during the week, an exercise known as Repeated Reading (NICHD, 2000; Therrien, 2004), and then spend a few minutes before starting their new book or re-reading the book with their buddy. The child and reading buddy take turns to read pages in the book and the child has an opportunity to demonstrate improved reading and confidence resulting from the repeated practice during the week. The inclusion of repeated reading and reading with a model capitalise on research into effective reading practice (Kuhn & Stahl, 2003; NICHD, 2000; Rasinski, 2006) and increase the opportunities for success for the children involved.

Cool Down: Transfer and generalization.

Many children are able to use the strategies in the context they are taught but experience difficulty when applying this knowledge to new situations, particularly back in the classroom. Transfer and generalization are the goal in any educational program (Lovett, Barron, & Benson, 2003; Vaughn, Gersten, & Chard, 2000). This activity allows the child to see the value of what they have been learning with their buddy. They also have an opportunity to apply their knowledge in a supportive environment. This is the "how (do I do it?)" and "why (am I learning this?)" for the child. In the "Cool Down", children are asked to select their favourite page of the book they have just read and identify sight words they know and elements of phonological awareness they have learnt so far (rhyming words, words with two syllables, words with the same first sound, compound words). This activity helps the child see the relevance of the activities they have been learning in the program and to identify real-life applications of their new skills.

Celebrating effort/ability: Reading self-concept.

In the final section of the program, Celebrating Effort, children and reading buddies record their hard work in the Communication Book, a separate book to the R4L manual. Children are encouraged to identify areas in which they have done well during the session and hear praise from their buddy. This section is an instrumental component of R4L and serves to enhance the child's self-concept of their reading skills and attitudes. Self-concept has a positive influencing role in the outcomes of education (Marsh & Craven, 2006; Marsh & Yeung, 1997).

Much can be gained in pedagogical practices from research in the field of psychology. Currently, psychological research is concerned with identifying the characteristics of individuals who are healthy, productive, and successful. There is overwhelming support to suggest that a positive self-concept can significantly influence the life opportunities for children (Chapman, 1988; Marsh & Craven, 2006; OECD, 2003). There is also a growing body of literature addressing the contributions that self-concept makes to the academic outcomes of children (Chapman, 1988; Marsh & Craven, 2006). These findings have enormous potential to maximise the potency of reading interventions and assist children with reading difficulties to learn to read and feel better about themselves, and thus enabling them to participate in life pursuits. As such, self-concept theory and research have the potential to improve the efficacy of educational interventions. Research in this area has demonstrated that self-concept and achievement are mutually reinforcing, sharing a dynamic causal relation, such that improvements in self-concept lead to improvements in performance, and vice versa (Marsh & Craven, 2006). Hence, interventions synthesising

both skill-based and self-concept enhancement strategies will be the most potent interventions available for children.

In a meta-analysis examining the effects of self-concept enhancement interventions, O'Mara, Marsh, Craven, and Debus (2006) found that interventions using praise or feedback yielded the strongest effect size for self-concept interventions (d = 1.13). Performance feedback is an integral component of the learning process and is most effective when it is positive and immediate (Hattie, 2009). Two types of feedback, attributional feedback and internally focused feedback, have been demonstrated to be effective in promoting increased self-concept for children (Craven, Marsh, & Burnett, 2003; Craven et al., 1991), including those with learning difficulties (Tabassam & Grainger, 2002). These have been incorporated into the R4L intervention.

Internally focused feedback is a strategy designed to promote children to internalise praise for specific behaviours for use again in the future. This structured feedback involves five key elements: (1) acquiring the child's attention; (2) publically praising the specific behaviour, (3) generalising this behaviour to situations beyond the present occurrence, (4) encouraging the child to internalise the behaviour, and (5) modeling the internalisation for the child (Craven et al., 1991). Children are provided with performance feedback, coupled with statements to encourage them to realise their influence on the outcome. An example includes, "You have read that story well. You're doing very well in reading. You must feel good about your abilities in reading. I do too". This statement identifies competence in the specific task of reading a story, generalises this to the greater subject area of reading, encourages the child to internalize the feedback, and finally model the internalisation. These statements are included in the R4L intervention.

Attributional feedback is a strategy designed to promote children to attribute their success in a situation to the effort applied, their abilities, or their selection of the most appropriate strategy. This structured feedback involves three key elements: (1) acquiring the child's attention; (2) publicly praising the specific behaviour; and (3) attributing current success to the child's efforts, abilities, or correct strategies used (Craven et al., 1991; Robertson, 2000). Importantly, children must be presented with tasks that they can succeed in to provide the opportunity for attributional feedback to be implemented (Robertson, 2000). Attributional retraining interventions encourage children to stabilise their perception of their ability, and consider their efforts and task difficulty to influence academic outcomes (Brophy & Good, 1986). An example includes "The reason your reading has been so good lately is that you're using good methods and you keep on trying". This statement identifies competence in the specific task of reading and attributes this success to the strategies being used. The enhancement of self-concept is significant for long-term benefits of interventions (Marsh & Craven, 2006), a desirable trait for any intervention.

Evaluation of a Dual Approach to Reading Intervention

The central aim of this article is to demonstrate how educators can develop and implement interventions strengthened by a dual focus. To showcase the program's efficacy, a brief evaluation of the program is provided here (for a full discussion see Hornery, 2011). The qualitative evaluation was conducted using semi-structured interviews with children (n = 52; Years 1- 4), parents (n = 15), teachers (n = 28), and volunteer reading buddies (n = 31). As the purpose of the interviews was to highlight the good practices of the program in facilitating both reading self-concept and reading skills, only children who had participated in the program were interviewed. They were asked to reflect on their experience and provide feedback. Interview data were analysed using a thematic analysis approach (Patton, 2002; Teddlie & Tashakkorie, 2009).

Two research questions were posed asking about the impact of R4L on children's reading achievement and reading self-concept. The children reported having greater success in decoding new

words and the adult participants agreed that the children were better able to sound out new words as evidenced in the following quotes:

> I sound out the letters and do the work. I used to not sound them out. (Child)
>
> He can break up the word and yes, try to break it up and read it from there and he's trying, he's learnt to pick up in the sounds. (Parent)

Parents, teachers, and the children themselves mentioned that the children were reading independently much more often. Parents reported an increase in the frequency and quantity of independent reading displayed by their children and noticed that they were more confident and successful when reading at home. In fact, the increased frequency of autonomous reading was one of the most consistently mentioned changes in children's reading behaviour and is illustrated in the following quotes:

> Sometimes at home I go and read four chapter books. (Child)
>
> She's even started bringing books in for us to share in class and showing me what she's reading at home. (Teacher)

Another often mentioned theme by participants was that the children's confidence in reading improved during the program. Participants believed that the children were happier and more willing to read during and after participation in R4L. The children described feeling more capable of reading and having more skills in reading, indicative of improved reading self-concept and confidence. Teachers also reported observing improved confidence in children after participating in R4L. The following quotes demonstrate this improved confidence in reading:

> My reading is better. (Child)
>
> I have seen her be so much more confident, she is happy to read and wants to show me her reading a harder book, it's great. (Parent)
>
> It's rewarding to see them, you know, every week get a little bit more confident and a little bit more, you know, out there with their reading. (Volunteer Reading Buddy)

In an additional theme to emerge, the reading buddies recognized the contribution of the games aspect to children's learning and the unique individual and special time the children received when working with their reading buddy, with most reading buddies identifying the one-to-one attention as a successful element of R4L.

> Kids don't really realise that perhaps through the game they're actually learning so that element of being able to teach them something through the aspect of fun is such a positive to this program. (Volunteer Reading buddy)
>
> When you're working with a child one on one I think the child benefits a lot because they can't get that level of attention in the classroom. (Volunteer Reading Buddy)

Classroom teachers acknowledged the benefit of the additional assistance children with reading difficulties received during R4L and were particularly grateful for the one-to-one aspect of the program.

> It's the one on one that we can't provide them in the classroom for the 6 hours that they're here. We can provide them with a minute here, a minute there, 10 minutes here, 10 minutes there. We can't provide them with what the girls can do and that, listening to them read a whole book with no interruptions, it's like, that one on one, that consistent time every week, is fantastic, that's what I think that is, it's just wonderful. (Teacher)

These positive affirmations of the program demonstrate that R4L can serve as a vehicle to successfully counteract reading difficulties in schools using trained volunteers, and highlight the potency of adopting a dual approach to tackle reading difficulties. Future research should, however, adopt a more empirical evaluation of the program, including the use of a control group.

Summary

Establishing, enhancing, and sustaining reading achievement and reading self-concept are vital ingredients in assisting children to take full advantage of their potential and to realise a range of healthy and fruitful lifetime outcomes. It is the responsibility of educators to identify the most effective ways to facilitate the development of both reading skills and self-concept in children. Reading failure is a considerable issue worldwide and much attention has been given internationally to the causes, incidence, and treatment of these difficulties (DEST, 2005; NICHD, 2000; Rose, 2006, 2009). Educational research provides educators with possible paths for remediating reading difficulties. A responsible course of action for educators to take is to consult research in a range of disciplines to ensure the most potent interventions are available for children with reading difficulties. R4L capitalises on research in reading and educational psychology and as such complements existing programs and strategies available to teachers to break the cycle of failure for children with reading difficulties. The dual strategy of incorporating both skills and self-concept interventions, as demonstrated in the current article, has the ability to unlock the full potential of disadvantaged and marginalised children and provide them with the opportunity to participate fully in society to their own benefit and that of the nation.

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