

Self-Determination for Primary School Children: Theory and Practice

Research suggests that students who are self-determined are more likely to succeed as adults. This article contains a brief overview of the literature in the field of self-determination since its emergence as a topic of interest in the 1980s. Definitions of self-determination are presented, as described by authors in the field and Self-Determination Theory, as proposed by Deci and Ryan (2000) is deconstructed. The *Component Elements of Self-Determined Behaviour* (Wehmeyer, 1992) are outlined and teacher-based strategies for applying these nine elements are proposed, with reference to the Primary School Curriculum. These strategies are suggested for implementation in light of the Continuum of Support and the new *Guidelines for Primary Schools Supporting Pupils with Special Educational Needs in Mainstream Schools* (DES, 2017). Research outlines that strengthening pupils in these elements leads to higher levels of self-determination, both for typically developing children and those with special educational needs.

Keywords: Self-determination, pupil autonomy, motivation, development

PHILIP O'BRIEN is a mainstream class teacher in Scoil an Athar Tadhg, Carraig na bhFear, Co. Cork. He has recently completed a Master of Arts in Education through the University of Hull, specialising in the role teachers play in promoting resilience in primary school children. He has previously presented at the Irish Association of Teachers in Special Education (IATSE) conference in the area of child mental health and resilience.

Corresponding author: phillyob@hotmail.com

INTRODUCTION

Self-determination is a valued and critical outcome of education. Previous research has validated this goal by demonstrating links between higher levels of self-determination and positive adult outcomes (Einsman & Chamberlin, 2001). In recent years, the Irish education system has undergone a wide array of policy shifts, aimed at addressing the diverse needs within our classrooms

(e.g. Government of Ireland (GOI), 1998, 2004, 2005). One such policy, a revised model for allocating special education teaching resources, commenced in September 2017. This policy aims to give schools “greater autonomy to allocate teaching resources flexibly, based on pupils’ needs without the requirement for a diagnosis of a disability” (Department of Education and Skills, DES, 2017, p.4). This revised model seeks to maximise the use of special education teaching resources to improve outcomes for pupils with special educational needs (SEN). In doing so, schools are encouraged to “develop their capacity to identify and respond to the learning needs of students, to utilise resources to best effect and to record and measure outcomes for students with SEN” (National Council for Special Education, 2014, p.25).

In light of this flexible model, the need to prepare young people with SEN, in common with their peers without SEN, to become more autonomous and to develop self-determination skills requires consideration (Harrison, 2006). Notably, recent findings from the Organisation for Economic Co-operation and Development (OECD, 2011) have advocated for the explicit teaching of self-determination skills in an educational context. This report deems that the preparation of students with SEN to become more autonomous and self-determined should constitute a core goal within school provision (OECD, 2011). These sentiments are echoed by Field et al. (1998) who state that it is the pupils with disabilities who may need explicit instruction and structured opportunities for practice in order to develop these attributes. Research illustrates there to be “clear evidence that if provided adequate instruction, students with disabilities can become more self-determined” (Shogren et al., 2015, p.254). A review of the literature shows that explicit teaching in the area of self-determination leads to positive outcomes for pupils with a range of disabilities, including children with behavioural difficulties (Shogren, Faggella-Luby, Bae & Wehmeyer, 2004), autism (Frea, Arnold & Vittimberga, 2001), intellectual disabilities (Khemka, 2000) and developmental disabilities (Gumpel, Tappe & Araki, 2000).

In the most recent SEN guidelines (DES, 2017), the Department has emphasised the need for schools to use the Continuum of Support framework to assist in identifying and responding to pupils’ needs. Using this framework, schools can ensure that “interventions are incremental, moving from class-based interventions to more intensive and individualised support” (DES, 2017, p.6). Accordingly, self-determination instruction can be considered at whole-class, small group or individual pupil levels.

WHAT IS SELF-DETERMINATION?

Self-determination is an area of research that is relatively new in the psychological field. According to Wehmyer and Field (2007), self-determination first became a topic of interest within education in the late 1980s. A review of the literature suggests that there is currently no generally accepted definition of self-determination (Wehmeyer et al., 2003). Definitions have been proposed by authors in the area. Ryan et al. state that “Self-determination is an approach to human motivation and personality...that highlights the importance of humans’ evolved inner resources for personality development and behavioural self-regulation” (1997, p.702). Wehmeyer et al. suggest that self-determination, “refers to acting based on one’s own mind or free will, without external compulsion” (2003, p.6). In addition to defining self-determination, a number of researchers have also emphasised the ecological context for its development. Wehmeyer et al. outline the interaction of person and environment.

Self-determination does not lie ‘within a person’. It is the product of both the individual and the environment...to fully understand the construct, one must therefore understand not only how various personal characteristics influence self-determination, but the manner in which the ecology influences its development and behavioural manifestation (2003, p.27).

Accordingly, self-determination is viewed as an acquired skill impacted both by internal factors (e.g. developmental milestones) and environmental factors. The National Council for Special Education (NCSE, 2013) highlights self-determination training as one intervention that warrants consideration in the Irish context.

SELF-DETERMINATION THEORY

Ryan and Deci’s (2000) ‘Self-Determination Theory’ (SDT) requires review. This early work in the field is deemed critical to the general understanding of self-determination such that it “set the stage for an extended discussion of self-determination” (Deci, 1980, p.3). Rooted in the field of research, SDT is an evidence-based theory of human motivation, development, and wellness (Ryan & Deci, 2008). By ‘motivation’, it is meant students’ desire and willingness to engage and persist with a learning task (Schunk, Pintrich & Meec, 2008).

Typically, underlying reasons for motivation are seen as either intrinsically focused (doing something from which innate pleasure and enjoyment is derived)

or extrinsically focused (doing something because it may lead to an external outcome) (Ryan & Deci, 2000). In classrooms, a range of intrinsic and extrinsic motivational factors may facilitate greater learning outcomes. In order to facilitate such outcomes and maximise learning opportunities, one must understand the three basic psychological needs which underpin SDT.

According to SDT, students' motivation is affected by whether the development of these three basic needs of *autonomy*, *competence* and *relatedness* are supported or hindered. Recent studies have highlighted how the actualization of all three of the basic psychological needs have led to increased feelings of task-competence, task-value, willingness to engage in learning tasks as well as higher overall task performance (e.g. Jang et al., 2009; Katz & Assor, 2007; Reeve, 2009).

Firstly, Ryan and Deci (2008) deem that pupils who are autonomous are seen as enthusiastic and inherently consenting towards their learning. The concept of autonomy has gained prominence in educational and psychological domains in recent years with the authors attesting that “consistently, the autonomy orientation has been positively related to psychological health and effective behavioural outcomes” (2008, p.182). This goal of autonomy for pupils with SEN is reflected in the Education for Persons with Special Educational Needs Act (GOI, 2004). The Act makes provision for such pupils with an aim to “assist children with SEN to leave school with the skills necessary to participate, to the level of capacity, in an inclusive way...and to live independent and fulfilled lives” (p.5).

The second fundamental element to SDT is that of competence, defined by Niemiec and Ryan as, “the feelings of capability and effectiveness towards a task” (2009, n.p.). SDT posits that all individuals possess an innate and psychological need for competence. In broader terms, Berk attests that, “evaluations of our own competencies affect emotional experiences, future behaviour and long-term psychological adjustment” (2013, p.461). Competence is seen as a key objective right throughout the primary school curricular documents, with the introductory document highlighting that skills learned should “provide a competence that allows for further development in second-level education” (GOI, 1999a, p.46). The attainment of pupil competence is also prioritised in *the Guidelines for Primary Schools Supporting Pupils with Special Educational Needs in Mainstream Schools* (DES, 2017). This allocation model strives for competency prioritising teaching support based on learning needs rather than the diagnosis of a disability. These guidelines provide a continuum of support with the ultimate goal of academic competence and social, emotional and behavioural competence.

The third element of SDT, as proposed by Ryan and Deci (2000), is relatedness. This pertains to one's sense of social engagement and belonging and is deemed a significant predictor of sustained intrinsic motivation. In the classroom, pupil relatedness is characterised by a pupil-teacher relationship of trust, value and mutual respect (Niemiec & Ryan, 2009). This concept of relatedness is rooted in Bronfenbrenner's (1979) theory of the *Ecology of Human Development*. Notably, this is the framework that is conceptually used for the *Growing Up in Ireland* study (Department of Health & Children, 2009), which, "emphasises children's connectedness to the world within which they live" (2009, p.18). Wehmeyer et al. (2003, p.32) outline how Bronfenbrenner's theory, "begins to capture the complexity of the social structure within which self-determination develops and is exercised". *The Behavioural Emotional and Social Difficulties* (BESD) guidelines for teachers present a sense of belonging as fundamental to a child's well-being. In this regard, it emphasises fundamental issues for a child such as, "does the pupil have close family and friends [and] feel part of his/her class" (National Educational Psychological Service, (NEPS), 2010, p.65).

To consider how the teacher can support the development of the SDT construct within the classroom, it is essential to review more recent work in the field. Research conducted by Wehmeyer and colleagues is particularly relevant as it addresses the development of self-determination within the classroom context. In particular, *The Component Elements of Self-Determined Behaviour*, as compiled by Wehmeyer (1992), will be examined as these are based on a comprehensive review of the literature and are deemed essential characteristics of applying self-determination to education (Wehmeyer, Kelchner & Richards, 1996). In addition, recent research has validated this construct across cultures (Ginevra et al., 2015). The author will explore how these component elements can be applied to the Irish education system with a particular focus on children with SEN.

THE COMPONENT ELEMENTS OF SELF-DETERMINATION

In an effort to link theory and practice, Wehmeyer deconstructs SDT into, "component elements of self-determined behaviour in order to design instructional activities for students across their school career" (1997, p.178). Wehmeyer proposes nine such components which underpin his theoretical framework. These include (1) choice-making, (2) decision-making, (3) problem-solving, (4) goal-setting and attainment, (5) self-regulation/self-management, (6) self-advocacy and leadership, (7) positive perceptions of control, efficacy, and outcome expectations, (8) self-awareness and (9) self-knowledge. Research suggests that by enhancing

student capacity in each of these nine areas, higher levels of self-determination can be acquired, both for typically developing children and those with SEN (e.g. Lee et al., 2008; Wehmeyer et al., 2012).

Choice-Making Skills

Reflecting on the Social Personal and Health Education (SPHE) curriculum (GOI, 1999b), it is evident that choice-making is deemed a central skill for development, commencing in the infant classes and permeating throughout the subsequent years. The DES (2011) advocate children as partners in choice-making when it comes to their education. Incorporating choice-making into the daily activities of students with SEN has been associated with a higher level of task engagement and a lower level of problem behaviour (Cannella, O'Reilly & Lancioni, 2005). The complexity of choice-making is reflected in the curriculum where children are encouraged to “explore and discuss the factors that influence personal decisions and choices and the different levels of thought involved in making a decision” (GOI, 1999b, p.45). Teachers should aim to incorporate various opportunities throughout the day for children to take ownership of their learning and make choices they deem optimal, both on an individual and group basis. For pupils with SEN and those with difficulty making independent choices, Cabeza et al. encourage the teacher to “give advance notice of the options they will need to choose from, visuals of the available options, or more information about each option” (2013, p.3).

Decision-Making Skills

Decision-making, the second component of self-determined behaviour, is when, “the student generates the options to choose from, rather than someone else providing them with the options” (Wehmeyer & Field, 2007, p.82). The primary school curriculum prioritises decision-making to the extent that it is a core component and strand unit of SPHE, with one of the primary aims of the curriculum cited as “to enable the child to make informed decisions” (GOI, 1999b, p.9). The curriculum highlights that by embedding the SPHE curriculum in every facet of student life, “children can develop a framework of values, attitudes, understanding and skills that will inform their decisions” (GOI, 1999b, p.2). The National Council for Curriculum and Assessment (NCCA) cite that “students become much more self-directed in their learning...[when] teachers involve students more in learning and teaching decisions” (NCCA, 2010, p.9). Research shows that children with SEN often need to practice decision-making skills in a safe environment before their application to a real-life context (Cabeza et al., 2013). The authors advocate the use of “group-think decision activities based on role-plays, stories, and videos when students are first developing this skill” (p.4).

Problem-Solving Skills

The third component element of self-determined behaviour is the development of problem-solving skills. Problem-solving can be defined as “the ability to analyse...plan, monitor and evaluate solutions; to apply strategies; and to demonstrate creativity and self-reliance” (GOI, 1999b, p.8). Often, students use problem-solving skills during activities, tasks, or situations that do not have an obvious or pre-determined solution (Wehmeyer et al., 2008). Such situations require independence and competence in school activities and social situations. Coupled with the teacher serving as a role model in dealing with conflict situations, NEPS (2010) advocate the use of a ‘Think Sheet’. This facilitates students to reflect on how they solved a challenging situation and any changes they would make in the approach they took. NEPS also promote the practice of problem-solving at group level where, “children can problem solve with friends” (NEPS, 2007, p.51).

Goal-Setting Skills

The fourth component of self-determined behaviour is goal-setting. “Goal-setting is the system of directing efforts and resources for the purposes of achieving a desired outcome” (Richenhagen, 2013, p.15). Eiseman and Chamberlin propose that self-determined pupils set goals from awareness of personal needs and preferences (2001). Wehmeyer (2007) advocates goal-setting that provides the optimal challenge for the pupil, challenging enough to provide an adequate level of accomplishment but not so difficult that it leads to frustration. Research highlights that ideally, the student should play a role in formulating his/her own goals (e.g. Lee et al., 2008). The NCSE recommends the use of ‘SMART’ targets when goal-setting for, and with, children. This is particularly important when formulating Student Support Files, a form of Individual Education Plan (IEP) whereby, “targets should be Specific, Measurable, Agreed, Realistic and Timebound” (NCSE, 2006, p.34). Research indicates that including pupils in their personalised planning and contributing when it comes to goal-setting “can significantly contribute to the ultimate achievement of these targets” (NCSE, 2006, p.55).

Self-Regulation/Self-Management Skills

The fifth component element of self-determined behaviour is self-regulation, which involves “teaching students to monitor and evaluate their own behaviour” (Cabeza et al., 2013). To attain substantial levels of self-regulation, Muraven and Baumeister outline that “like a muscle, repeated practice and rest can improve self-control strength in the long term” (2000, p.254). In an Irish context, the SPHE curricular documents propose the need for, “development of a variety of personal and self-management skills and the fostering of a sense of personal responsibility

for their own actions and behaviour” (GOI, 1999b, p.5). NEPS (2007, 2010) emphasises the importance of supporting students in developing this skill-set. They provide a host of practical strategies to support the development of children’s self-regulation, particularly through self-monitoring and self-reinforcement. Examples include pupils selecting their own reinforcement and self-directing learning through strategies like self-instruction (NEPS, 2010). Evidence-based strategies include the use of checklists (NEPS, 2010) and journaling of academic, behavioural and social goals (Cabeza et al., 2013).

Self-Advocacy and Leadership Skills

“Self-advocacy is the act of speaking up for oneself” (Comhairle, 2004, p.14). Wehmeyer and Field (2007) highlight the significance of self-advocacy skills if pupils are to become independent, self-determined leaders. The authors present the ‘characteristics of leaders’ as people who communicate effectively, know and stand up for their rights and are effective with a team. The SPHE primary school curriculum advocates that “the child should be enabled to develop and practise leadership roles and learn to work together in different group situations” (GOI, 1999b, p.49). One such example includes encouraging pupils to advocate for their own preferences when participating in planning and transition meetings (Wehmeyer et al., 2008). Research emphasises the importance of “modelling differences between acting assertively and acting aggressively so students gain an understanding of socially appropriate interactions” (Cabeza et al., 2013). The authors also outline how it may be beneficial to pair students with a mentor with similar interests so they can model this behaviour and offer advice.

Self-Awareness and Self-Knowledge

If students are to act in a self-determined manner, they must possess a basic understanding of their individual strengths, abilities, limitations and unique learning needs (Wehmeyer & Field, 2007, p.83).

Self-awareness cannot simply be taught through direct instruction. Referring to both self-awareness and self-knowledge, Wehmeyer and Field propose the need for “an understanding of one’s uniqueness and separateness from others” (2007, p.83) through an increased awareness of one’s preferences, interests, values, strengths, and weaknesses. Practical examples of facilitating child self-awareness are outlined in the strand-unit of self-identity in the SPHE curricular document. These include facilitating the child to talk about personal strengths, abilities, characteristics and personal preferences and to recognise the similarities and differences between people (GOI, 1999b). Questionnaires that identify personality

and learning traits, as well as brainstorming ways of maximising strengths, come recommended (Wehmeyer et al., 2013). Also, the BESD guidelines outline how “The strand unit ‘Developing citizenship’ begins by focusing on the classroom and school as a microcosm of the wider community where the students learn to share and co-operate, participate effectively, and celebrate difference” (NEPS, 2010, p.35).

CONCLUSION

Promoting self-determination has become best practice in educational settings (OECD, 2011; Wehmeyer et al., 2013). Research suggests that such practice greatly enhances the self-determination of all pupils, including those with SEN (Wehmeyer et al., 2013). This is significant when one considers the link between positive self-determination and desirable secondary, post-secondary and adult outcomes (Einsman & Chamberlin, 2001). However, based on a review of the literature, the extent to which schools promote the component elements of self-determination within the realms of the current Primary School Curriculum is questionable, particularly considering the reduced time allocation of SPHE as a curricular subject (DES, 2011). Whilst there is a wide range of class-level instructional activities, there is always a need for intervention at a small group and individual level, particularly for those pupils with SEN. In light of the recent implementation of the revised model for allocating special education teaching resources (DES, 2017), schools need to consider the level of priority that is afforded to the teaching and promotion of self-determination skills, with reference to the Continuum of Support (NEPS, 2007, 2010). This would help to support children in acquiring these fundamental life-long skills, particularly prior to transitioning to post-primary settings where heightened focus is placed on autonomous functioning of the adolescent. In this way, self-determination can continue to gain momentum as an important construct, reflecting the natural human propensity to learn and gain independence.

REFERENCES

- Berk, L. (2013) *Child Development* (6th ed). London: Pearson Education.
- Bronfenbrenner E. (1979) *The Ecology of Human Development: Experiments by Nature and Design*. Cambridge, Massachusetts: Harvard University Press.

- Cabeza, B., Magill, L., Jenkins, A., Carter, E., Greiner, S., Bell, L., and Lane, K. L. (2013) *Promoting Self-Determination Among Students With Disabilities: A Guide for Tennessee Educators*. Available at: https://static1.squarespace.com/static/57752cbcd1758e541bdee_f6b/t/579bd228e58c625407294e0f/1469829678939/Carter_2013_Self_Determination.pdf (accessed 15th July 2017).
- Cannella, H. I., O'Reilly, M. F., and Lancioni, G. E. (2005) Choice and Preference Assessment Research with People with Severe to Profound Developmental Disabilities: A Review of the Literature. *Research in Developmental Disabilities*, Vol. 26, 1-15.
- Deci, E.L. (1980) *The Psychology of Self-determination*. Lexington, Mass: Lexington Books.
- Department of Education and Skills (DES) (2011) *Literacy and Numeracy for Learning and Life: The National Strategy to Improve Literacy and Numeracy among Children and Young People 2011-2020*. Dublin: The Stationery Office.
- Department of Education and Skills (DES) (2017) *Guidelines for Primary Schools: Supporting Pupils with Special Educational Needs in Mainstream Schools*. Available at: <https://www.education.ie/en/The-Education-System/Special-Education/Guidelines-for-Primary-Schools-Supporting-Pupils-with-Special-Educational-Needs-in-Mainstream-Schools.pdf> (accessed 2nd July 2017).
- Department of Health & Children (2009) *Growing Up in Ireland National Longitudinal Study of Children Background and Conceptual Framework*. Dublin: The Stationery Office.
- Einsman, L. and Chamberlin, M. (2001). Implementing Self-determination Activities: Lessons from Schools. *Remedial and Special Education*, Vol. 22(3), 138- 147.
- Field, S., Martin, J., Miller, R., Ward, M., and Wehmeyer, M. (1998) *A Practical Guide to Teaching Self-Determination*. Reston VA: Council for Exceptional Children, Division on Career Development and Transition.
- Freya, W., Arnold, C., and Vittimberga, G. (2001) A Demonstration of the Effects of Augmentative Communication on the Extreme Aggressive Behavior of a Child with Autism within an Integrated Preschool Setting. *Journal of Positive Behavior Intervention*, Vol. 3, 194–198.

- Ginevra, M.C., Nota, L., Soresi, S., Shogren, A.K., Wehmeyer, M.L. and Little, T.D. (2015) A Cross-Cultural Comparison of the Self-Determination Construct in Italian and American Adolescents. *International Journal of Adolescence and Youth*, Vol. 20(4), 501-517.
- Government of Ireland (GOI) (1998) *Education Act 1998*. Dublin: The Stationery Office.
- Government of Ireland (GOI) (1999a) *Primary School Curriculum Introduction*. Dublin: The Stationery Office.
- Government of Ireland (GOI) (1999b) *Primary School Curriculum: Social, Personal and Health Education*. Dublin: The Stationery Office.
- Government of Ireland (GOI) (2004) *Education of Persons with Special Educational Needs Act*. Dublin: The Stationery Office.
- Government of Ireland (GOI) (2005) *Disability Act*. Dublin: The Stationery Office.
- Gumpel, T. P., Tappe, P., and Araki, C. (2000) Comparison of Social Problem-Solving Abilities among Adults with and without Developmental Disabilities. *Education and Training in Mental Retardation and Developmental Disabilities*, Vol. 35, 259–268.
- Harrison, N. (2006) The Impact of Negative Experiences, Dissatisfaction and Attachment on First Year Undergraduate Withdrawal. *Journal of Further and Higher Education*, Vol. 30, 377-391.
- Jang, H., Reeve, J., Ryan, R. M., and Kim, A. (2009) Can Self-Determination Theory Explain what Underlies the Productive, Satisfying Learning Experiences of Collectivistically-Oriented Korean Adolescents? *Journal of Educational Psychology*, Vol. 101, 644–661.
- Katz, I., and Assor, A. (2007) When Choice Motivates and When it Does Not. *Educational Psychology Review*, Vol. 19, 429–442.
- Khemka, I. (2000) Increasing Independent Decision-Making Skills of Women with Mental Retardation in Simulated Interpersonal Situations of Abuse. *American Journal on Mental Retardation*, Vol. 105, 387-401.

- Lee, S. H., Wehmeyer, M.L., Palmer, S.B., Soukup, J.H. and Little, T.D. (2008) Self-Determination and Access to the General Education Curriculum. *The Journal of Special Education*, Vol. 42, 91–107.
- Muraven M. and Baumeister R. F. (2000) Self-Regulation and Depletion of Limited Resources: Does Self-Control Resemble a Muscle? *American Psychological Association*, Vol. 126(2), 247-259.
- National Council for Curriculum and Assessment (NCCA) (2010) *Innovation and Identity: Ideas for a new Junior Cycle*. Available at: http://www.ncca.ie/en/Publications/ConsultativeDocuments/Summary_Innovation_and_Identity_Ideas_for_a_new_junior_cycle.pdf (accessed 2nd June 2017).
- National Council for Special Education (NCSE) (2006) *Guidelines on the Individual Educational Plan (IEP) Process by the National Council for Special Education*. Trim, Co. Meath: National Council for Special Education.
- National Council for Special Education (NCSE) (2013) *What Works in the Provision of Higher, Further and Continuing Education, Training and Rehabilitation for Adults with Disabilities? A Review of the Literature*. Trim, Co. Meath: National Council for Special Education.
- National Council for Special Education (NCSE) (2014) *Delivery For Students with Special Educational Needs: A Better and More Equitable Way*. Trim, Co. Meath: National Council for Special Education.
- National Educational Psychological Service (NEPS) (2010) *Behavioural, Emotional and Social Difficulties - A Continuum of Support: Guidelines for Teachers*. Dublin: The Stationery Office.
- National Educational Psychological Service (NEPS) (2007) *Special Educational Needs: A Continuum of Support: Guidelines for Teachers*. Dublin: The Stationery Office.
- Niemiec, C. P. and Ryan, R. M. (2009) *Autonomy, Competence, and Relatedness in the Classroom. Applying Self-Determination Theory to Educational Practice*. University of Rochester: New York, USA.
- Organisation for Economic Co-operation and Development (OECD) (2011) *Inclusion of Students with Disabilities in Tertiary Education and Employment*. Paris: Organisation for Economic Cooperation and Development.

- Reeve, J. (2009) *Understanding Motivation and Emotion* (5th ed.). Hoboken, NJ: Wiley.
- Richenhagen M. (2013) *Simply Management: A CEO's Approach to Daily Effectiveness and Lasting Success*. Bloomington: iUniverce LCC.
- Ryan, R. M., Kuhl, J., and Deci, E. L. (1997) Nature and Autonomy: Organizational View of Social and Neurobiological Aspects of Self-Regulation in Behavior and Development. *Development and Psychopathology*, Vol. 9, 701–728.
- Ryan, M.R. and Deci, D. L. (2000) Self-Determination Theory and the Facilitation of Intrinsic Motivation, Social Development, and Well-Being. *American Psychologist*, Vol. 55 (1), 68-78.
- Ryan, M.R. and Deci, D.L. (2008) Self-Determination Theory: A Macrotheory of Human Motivation, Development, and Health. *Canadian Psychological Association*, Vol. 49 (3), 181-185.
- Schunk, D. H., Pintrich, P. R., and Meece, J., L. (2008) *Motivation in Education* (3rd ed.). Upper Saddle River, NJ: Pearson Merrill Prentice Hall.
- Shogren, K., Faggella-Luby, M., Bae, S. J., and Wehmeyer, M. L. (2004) The Effect of Choice-Making as an Intervention for Problem Behavior: A Meta-Analysis. *Journal of Positive Behavior Interventions*, Vol. 6, 228-237.
- Shogren, K. A., Wehmeyer, M.L., Palmer, S. B. and Forber-Pratt, A. J. (2015) Causal Agency Theory: Reconceptualizing a Functional Model of Self-Determination. *Education and Training in Autism and Developmental Disabilities*, Vol. 50 (3), 251–263.
- Wehmeyer, M. L. (1992) Self-determination: Critical Skills for Outcome-Oriented Transition Services. *The Journal for Vocational Special Needs Education*, Vol. 39, 153-163.
- Wehmeyer, M. L. (1997) Self-determination as an Educational Outcome. A Definitional Framework and Implications for Intervention. *Journal of Developmental and Physical Disabilities*, Vol. 9, 175-209.
- Wehmeyer, M. L. (2007) Self-determination. *Autism Spectrum Disorders: A Handbook for Parents and Educators*, Vol. 2, 327-330.

- Wehmeyer M.L., Abery B. H., Mithaug D. E. and Stancliffe R. J. (2003) *Theory in Self-Determination Foundations for Educational Practice*. Illinois: Charles C Thomas.
- Wehmeyer M. L. and Field S. L. (2007) *Self-determination Instructional and Assessment Strategies*. California: Corwin Press.
- Wehmeyer M. L., Kelchner K., and Richards S. (1996) Essential Characteristics of Self Determined Behavior of Individuals With Mental Retardation. *American Journal on Mental Retardation*, Vol. 100 (6), 632-642.
- Wehmeyer, M. L., Martin, J. E., and Sands, D. J. (2008) Self-determination and Students with Developmental Disabilities. In H. P. Parette & G. R. Peterson-Karlan (Eds.), *Research-Based Practices in Developmental Disabilities* (pp. 99-122). Austin, TX: Pro-Ed.
- Wehmeyer M. L., Yeager D., Bolding N., Agran M., and Hughes C. (2003) The Effects of Self-Regulation Strategies on Goal Attainment for Students With Developmental Disabilities in General Education Classrooms. *Journal of Developmental and Physical Disabilities*, Vol. 15(1), 79-91.
- Wehmeyer, M.L., Palmer, S.B., Shorgen, K.A., Williams-Diehm, K. and Soukup, J. (2013) Establishing a Causal Relationship between Interventions to Promote Self-Determination and Enhanced Student Self-Determination. *Journal of Special Education*, Vol. 46 (4), 195-210.
- Wehmeyer, M.L., Shogren, K.A., Palmer, S.B., Williams-Diehm K., Little, T. and Boulton, A. (2012) Impact of the Self-Determined Learning Model of Instruction on Self-Determination: A Randomized-Trial Control Group Study. *Exceptional Children*, Vol. 78 (2), 135–153.

Copyright of Reach is the property of Irish Association of Teachers in Special Education and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.