A Triple-D Model of Primary Case Management System for Special Education

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ABSTRACT

There are many different models of case management and support coordination for disabled populations as reported in literature. Among them, the authors have chosen to use one specific framework, i.e., the Triple-D model where the first D stands for Diagnostics; the second D, Dialogics; and the third D, Didactics, to create a primary case management system. This Triple-D model was first developed and introduced by Chia and Kee (2012) to allied healthcare professionals from the International Association of Counselors and Therapists, and more recently, it has been used by some mainstream and special school case management teams. The model also constitutes a part of the modified Lesson Study approach that has been used as a teaching practicum evaluation tool for pre-service and in-service special school teachers and allied educators. In this paper, the main activities carried out in each of the three D-phases are described in details and all the three D-phases – Diagnostics, Dialogics and Didactics – can be re-labeled as Case Measurement, Case Consultation, Case Development (for transition from Dialogics to Didactics) and Case Intervention respectively, and collectively, they form the primary case management system.

Keywords: Case Management, Diagnostics, Dialogics, Didactics, Special Education

INTRODUCTION

What is Case Management?

Case Management (CM for short) forms an essential component in the design of a support service system needed by a specific group of individuals (e.g., workers with disabilities, children with learning disabilities, drug addicts, soldiers who suffer post-trauma stress disorder after returning from their call of duty from battlefield). Generally, it has been described as "a coordinated and integrated approach to service delivery, intended to provide ongoing supportive care and to help individuals access the resources they need for living and functioning in the community" (Vanderplasscehn et al., 2007, p.2). Efforts, time and funding are always needed to improve the design and provision of CM with the potential that can greatly impact on the quality of life of individuals with disabilities who require long-term care needs and who rely on support services.

There are many different CM models such as the generalist (or brokerage) CM model, the assertive community treatment (or intensive) CM model, the clinical (or rehabilitation) CM model, and strengths-based CM model (Ridgely & Willenbring, 1992; Vanderplasscehn et al., 2004). Most CM models offer the same core functions: assessment, planning, linking, monitoring, and advocacy (or APLiMA for short). They can be distinguished from one another basing on their features, the degree of service provision, the client participation and the case manager's involvement (Vanderplasscehn et al., 2007). For instance, in the generalist CM model (a very brief CM approach), the case manager assists a client identify his needs

and brokers ancillary or supportive services, all in one or two sessions (Stahler et al., 1995). It utilizes the commonly accepted CM functions and is characterized by a close involvement between the case manager and the client (see Woodside & McClam, 2002, for more detail). However, the assertive community treatment CM model, on the other hand, uses the same principles but with a smaller caseload and without a team approach. Whichever preferred CM model is used, Pearlman (1984) found that it has no impact on reducing the dropout rate among clients entering treatment. However, what has been noted is that there was a substantial increase in the number of people coming for treatment after they sought the CM support services. Falck, Siegal and Carlson (1992) and Lidz et al. (1992) reported little or no impact of CM when compared with non-CM control groups in their respective studies.

Defining Case Management System

As mentioned earlier, CM constitutes a part of the support service system. CM is itself also a system. According to Cooper (2006), CM as a system, or call it Case Management System (CMS for short), is defined as an activity that "assists individuals to gain access to needed care and services appropriate to the needs of an individual" (cited in Research and Training Centre on Community Living, 2008, p.4). The system has evolved over time and different terms have been used to describe it, e.g., resource management, service coordination and support coordination. The two main features of CMS are: first, it is to provide an interface or connection between individuals with disabilities and the system of publicly-funded and generic services and supports; and second, it is to assure that these services meet reasonable standards of quality and lead to important life outcomes for individuals (Cooper, 2006, cited in Research and Training Centre on Community Living, 2008, p.4). Amado (2005) has listed five functions of CMS: (1) administration; (2) crisis management; (3) consumer empowerment; (4) individual advocacy; and (5) systems advocacy. The fundamental question that has always been asked about CMS is who the person/s (known as case manager) is/are to perform all these five various roles. It is not an easy question to answer because CMS is already a very complex process, depending on the clients that it has been designed to serve and support, the kind of service it renders, and it can be divided further into primary and secondary as well as ancillary sub-systems.

The primary or critical part of CMS involves a case manager providing critical support services or assisting clients and their family members to determine the most creative and best use of their allocated resource dollars to design a personally-customized support service package. Hence, the main support role of the case manager is to focus on assisting the client and his/her family members in designing an individualized, self-directed community-supported life. However, this critical support role also includes playing the role of the following: (1) a monitor; (2) a support service coordinator; (3) a family/peer mentor; and (4) resource coordinator for specialized services, e.g., as a facilitator of a circle of friends which helps the client design his/her life and support service system. Moreover, the case manager "facilitates the plan development, connects the individual and family to community resources, and assists the person to design and purchase individualized support services" (Research and Training Center on Community Living, 2008, p.7). A client with physical disability, for instance, may get additional help in his/her career development and to identify an appropriate workplace where he/she would like to work and, of course, with a willing employer to engage the client by providing some kind of supported employment. In Singapore, the SG Enable – an agency dedicated to enabling persons with disabilities – and the Society for the Physically Disabled are two examples of organizations that have been actively helping such individuals with physical disabilities to secure gainful employment in the open market through enhancing employability and creating more employment options.

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Besides, CMS has its own comprehensive information management system in place that allows the flow of information from registration/intake to screening/assessment, to planning/implementing of treatment, to monitoring treatment progress, to incident-reporting and treatment quality assurance, which is also linked to a service-billing system, so as to increase accessibility and continual service coordination across all groups of people with different special needs.

Professionals working in community support services are often burdened with high caseloads and limited resources. As a result, the workings of CMS in support services can be greatly hampered. One way to address this challenging issue is to review all individuals with disabilities or special needs receiving CM support services, identify and decide who should continue receiving and who do not need intensive on-going CM support. Many a time, most clients just need to be made aware of the information, education, referral and appropriate service providers – the source of connection to the CMS – especially when they need advice. Hence, CMS will need to incorporate some kind of resource and referral system to channel these clients directly to the right source of help rather than for them to clog up the running of the system.

In other words, the primary CMS should be reserved only for those who are the most vulnerable, and caseloads should be limited to between 30 and 35 service recipients per case manager in order to have frequent and quality contacts between the case manager and his/her clients. This is certainly very much needed, especially in special education services, whether in special education (SPED) schools or mainstream schools supported by allied educators for learning and behaviour support (AEDLBS for short).

In the next two sections, two primary CMS models for special education in Singapore will be examined: the APIE CMS and the Triple-D CMS.

THE APIE CASE MANAGEMENT SYSTEM

In the field of special education in Singapore, SPED teachers and mainstream school teachers, who have undergone the Teaching Special Needs (TSN) program at the National Institute of Education (an autonomous institution of Nanyang Technological University, Singapore), are well aware of the APIE CMS. APIE is the acronym for Assessment-Planning-Implementation-Evaluation. It has been used as a planning tool applied within the managerial context of a mainstream school to support students with special needs.

Briefly, the APIE CMS begins with assessment phase to be followed by the planning phase and the implementation phase of selected intervention strategies to support students with special needs within a mainstream classroom. Finally, the evaluation phase at the end of this CMS serves both as the end point of the iteration and the herald of the beginning of a new cycle (see Figure 1). The components of the APIE CMS are briefly described below:

Assessment

Assessment is done directly or indirectly with the student concerned. Direct assessment concerns collection of information about the student in terms of his/her academic performance (through class tests and school examinations), observation of his/her behavior in class or outside class (through anecdotal records and portfolio assessment), his project works and so on. Indirect assessment of the student involves activities such as interviewing, answering a questionnaire and reviewing academic results. Once the assessment is done, results are consolidated and used in the planning of an intervention program to help the student concerned.

Planning

Planning concerns designing of an appropriate intervention program to help the student concerned and can focus on learning problems, behavioral challenges or both. Planning plays an important part in deciding the best approach to address the student's issues of concern in terms of (1) the purpose of intervention, and (2) the selection of suitable strategies that best suit the student's needs.

Implementation

Once the intervention program is designed, the next phase is Implementation, i.e., to carry out the plan as designed by the teacher(s) working with the student concerned. It is important to consider the following key factors when implementing the intervention program: frequency (i.e., how often?), duration (i.e., how long?) and the persons (i.e., who are involved?) involved in working with the student.

Evaluation

This fourth and final phase – Evaluation – concerns about the efficacy of the intervention program in achieving the goals that are based on the results of the tests administered in the Assessment phase as well as what has been set for the intervention program design in the Planning phase. It can lead to an altered intervention plan with the aim of improving the intervention program.

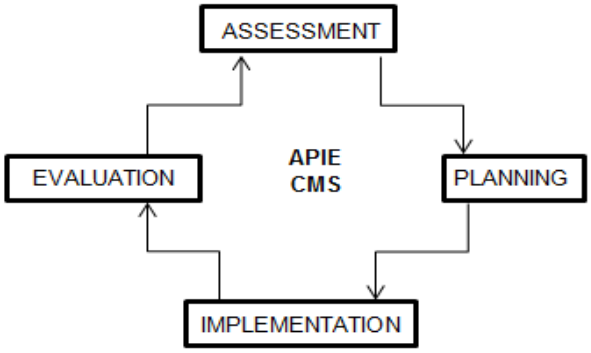

Figure 1. The APIE CMS Model

At this point, the APIE model comes to a full cycle and a new iteration of the loop is initiated. The APIE CMS presents an approach that may be adopted by all special education professionals working collaboratively as well as independently. The sequence of the APIE phases is very similar to the action research model presented by Lewin (1946) as follows: (1) identification of an idea; (2) search for facts supporting the idea; (3) designing a plan according to the idea; (4) taking action to implement the plan; (5) monitoring the progress of the plan; and (6) evaluation to amend or improve the plan.

THE TRIPLE-D MODEL OF PRIMARY CASE MANAGEMENT SYSTEM

In Singapore, it is important that every special education professional (SEP), i.e., special school teacher, allied educator for learning and behavior support, learning support teacher, and educational or special needs therapist, must be able to perform the following duties: (1) diagnosing a learning and/or behavioral issue of concern, (2) dialoguing with the client to establish a clear understanding of his/her issue of concern, and (3) *didactisizing* (as coined by Oerbaek, 2009) so that the client can learn to manage or cope with the issue of concern. Hence, a different case management system incorporating diagnostics, dialogics and didactics (also known as the Triple-D model) is needed in training of SEPs. The Triple-D model was

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first introduced by Chia and Kee (2012) for training of allied healthcare professionals under th administration of the Singapore chapter of the International Association of Counselors and Therapists based in the United States. Within the Triple-D model (see Figure 2), SEPs need to "carefully explore how student learning, thinking and behavior change as a result of a lesson taught" (Cerbin & Kopp, 2005, para.4). This approach is known as Lesson Study (see Lewis, 2002, for more detail) and much have been published on this topic in the current literature.

In this paper, the authors have chosen to use the Triple-D model to discuss in some detail how it is applied in creating a primary CMS to be used by SEPs and implemented in both special schools and mainstream schools that cater to students with special needs. To date, several special schools and mainstream schools in Singapore have trialed the model and more time is needed to let the SEPs get acquainted with it.

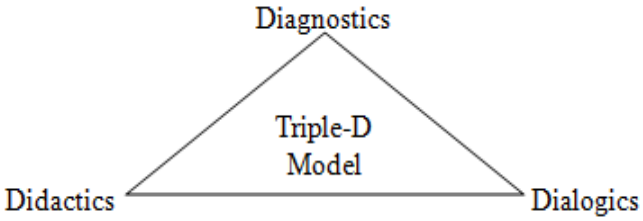

Figure 2. The Triple-D CMS Model (Chia & Kee, 2012)

Diagnostics

This component (also known as educational diagnostics) refers to evidence-based psycho-educational assessment (or screening), evaluation and profiling of a student suspected to have learning and/or behavioral challenges. Diagnostics adopts a trans-disciplinary approach that requires a SEP to know and understand different levels and types of assessment (formal and/or informal) in order to evaluate and profile the students with special needs that he/she is working or going to work with (National Clearinghouse for Professions in Special Education, 2008).

The Diagnostics phase involves the following steps:

Step 1

Screening of children at risk or suspected of having learning and/or behavioral challenges.

Step 2

Once a child is identified to have learning and/or behavioral challenges (from moderate to severe challenges), a full battery of formal and/or informal diagnostic tests covering a hierarchy of skills and abilities – i.e., innate abilities; sensory perceptuo-motor skills and abilities; adaptive behavioral skills and abilities; socio-emotional behavioral skills and abilities; and cognitive skills and abilities that encompass lexikos (i.e., literacy and language), calculatus (i.e., numeracy and mathematics), praxis (i.e., psychomotor coordination) and gnosis (i.e., knowledge of self and the world surrounding self) – is administered. Formal assessment often includes administration of IQ tests (e.g., Wechsler Intelligence Scale for Children, Stanford-Binet Intelligence Test and Slosson Full Range Intelligence Test), academic/educational achievement tests (e.g., Wechsler Individual Achievement Test and Wide Range Achievement Test). On the hand, informal assessment covers a wide range of domains and includes informal reading and language inventories, learning and thinking styles inventory, and many others.

Step 3

The results from the psycho-educational diagnostic assessment are compiled and analyzed to obtain a better understanding of each student's profile in terms of his or her strengths and needs.

For instance, in the case of screening and diagnosis of children with autism spectrum disorder, Bishop et al. (2008) have proposed three levels of testing: Level 1 is a standard screening procedure (e.g., Checklist for Autism in Toddlers) for all suspected cases; Level 2 will focus on those with high probability of autism (e.g., Childhood Autism Rating Scale); and Level 3 is a standard diagnosis to confirm if a child indeed has autism (e.g., Autism Diagnostic Interview-revised). Levels 1 and 2 are equivalent to Step 1 of the Diagnostics phase while Level 3 is that to Step 3 of the same phase.

The Diagnostics phase is also known as Case Measurement.

Dialogics

The term *dialogics* refers to the process whereby communicating parties mutually reaches agreement of the intended communication with verification of each other perceived perspective and contextual understanding, perceived use and relationship of communicated concepts and perceived meanings (Bakhtin, 1939, as cited in Todorov, 1984).

The Dialogics phase involves the following steps:

Step 1

This begins with a consultation with the parents of the child concerned as well as other professionals who have tested the child as well as those working with the same child such as the subject teachers, allied educators (e.g., school counselor, resource teacher, specialist teacher) and significant others, who may form the School Case Management (SCM) Team. This team may be known also by other terms such as the Individualized Education Program (IEP) Committee, the Student Welfare Committee and the Student Development Committee. The consultation session can take place over several sessions with the aim to confirm the findings of the psycho-educational diagnostic assessment. Moreover, it also serves to decide who the key people are to be actively involved in helping the student and to see him/her through a period of intervention.

Step 2

Confirmation can only come in after all the participants in the consultation have come to an agreement on the psycho-educational diagnostic assessment results as well as a definite decision on the people who will be working directly with the student concerned.

It is also during this second step that the SCM team has to decide if the student concerned should continue with the CM support services or be referred out to appropriate help somewhere else. This is to ensure that only those who need intensive ongoing CM support should be given the first priority of assistance.

Moreover, some clients just need additional information about support services (including subsidies) available to them so that they can make an appropriate decision to know what the next best option is that they should take up to help their loved ones with special needs. In other words, some kind of resource and referral system should also be incorporated into this phase of the CMS. This means that the SCM team needs to explore and network with other support service providers such as family service centers, counseling centers, learning clinics and special schools should they need to seek any professional advice.

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The Dialogics phase is also known as Case Consultation.

Transition from Dialogics to Diadactics

The transition phase from Dialogics to Diadactics involves a period of planning and designing an Individualised Education Program (IEP) for the student concerned. The following steps are involved:

Step 1

Planning *what* (i.e., content knowledge and skills) and *how* (i.e., strategies) to do to help the student concerned. It should also be reflective for all those people involved in working with the student.

Step 2

The people involved in designing the IEP also need to know *why* (i.e., rationale) they have chosen certain content knowledge and skills to teach the student with special needs and also why a particular method or strategy (or an eclectic approach) will be used in teaching.

The *what* (i.e., epis*T*eme), *why* (i.e., *T*elos) and *how* (i.e., *T*echne) components (or what is often termed as the *T*-components) of learning constitute what is currently known as the Triple-T model of Learning. Each of these three components will be briefly described below (see Figure 3 below; also see Chia & Kee, 2013, for detail).

Epistēmē: The Greek term *Epistēmē* refers to the "what of learning" or the content knowledge and skills that students need to learn or be taught. It means knowledge or "to know" and it resembles *techné* in the implication of knowledge of principles. However, *techné* differs from *epistēmē* in that it concerns making something happen or performing a task, as opposed to disinterested understanding.

Telos: The Greek term *Telos* refers to the "why of learning" or the rationale or reasons behind the choice of content knowledge and skills selected to be included in the design of curriculum to meet the learning and behavioral needs of students with special needs.

Techné: The Greek term *Techné* refers the "how of learning" or teaching strategies used during a lesson in order that a learning or behavioral objective is to be successfully attained. In selecting appropriate teaching strategies to work with students with special needs, two factors have to be carefully considered: (1) the type of disability; and (2) its degree of severity. In the field of special education, all teaching strategies can be classified under two main categories: accommodations and modifications. Students with disabilities may receive both accommodations and modifications.

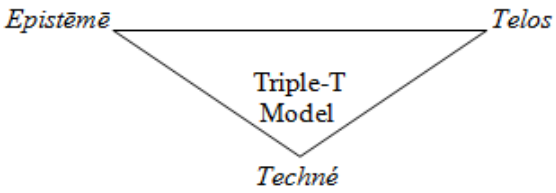

Figure 3. The Triple-T Model of Learning (Chia & Kee, 2013)

During the transition phase from Dialogics to Didactics, it is important for the SCM team to work out an annual aim for the student's IEP. This annual aim can be further divided into two goals with each for first or second semester. Under each semestral goal, it is further broken down into two objectives (i.e., one objective covering the learning aspect and other objective

covering the behavioural aspect) per term (i.e., one term is 10 weeks in the school academic year in Singapore) (see Figure 4).

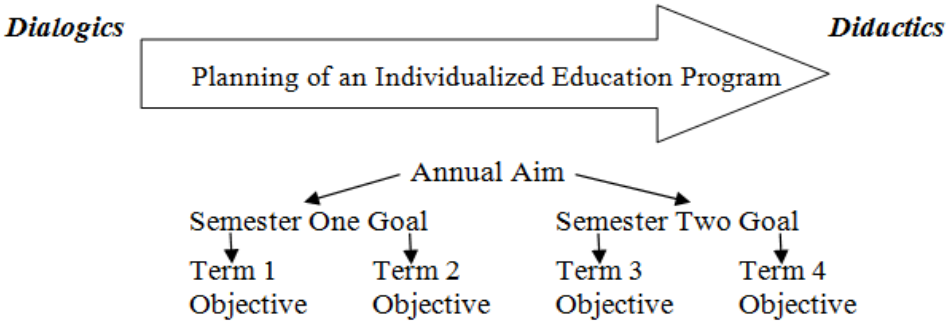

Figure 4. Planning of IEP in the Transition Phase

This transition phase is also known as Case Development, Case Planning or Case Building. Case Development is a more preferred term by the authors of this paper.

Didactics

The term *didactics* (i.e., to teach, to educate) refers to "having the ability to teach, the people who have the ability to teach, the content taught, teaching aids, including methods and media, the school and the classroom where learning takes place, and learning as the main activity of pupils" (Gundem, 1998, p.19-24). Moreover, it has also been defined as a practitioner's reflection of practice that concerns how he can realize his educational objective. This must not be confused with pedagogy – "the theory of second order educational reflection – that concerns the unity of education and reflection of education. The subject of didactics is educational methodology, while the subject of pedagogy is educational theory" (Qvortrup, 2007, para.3).

The Didactics phase involves the following steps:

Step 1

This step concerns the selection of materials, strategies and the people who will be working with the student concerned. Who these people are to be involved in this phase have to be decided and agreed upon by the SCM team as well as the parents or guardian of the student.

Step 2

The IEP that has been designed will be implemented over an agreed period of delivery as well as the frequency of delivery per week.

Step 3

Regular monitoring of the student's progress in terms of his/her learning performance and/or behavior management will be formatively as well as summatively evaluated.

Step 4

The outcomes at the end of the IEP are then collected for systematic analysis to compare them with the results obtained from the assessment done in the Diagnostics phase. This constitutes the evaluation of the effectiveness of the IEP.

The Didactics phase is also known as Case Intervention or Case Treatment.

Figure 5 summarizes the details of the Triple-D CMS model as shown below.

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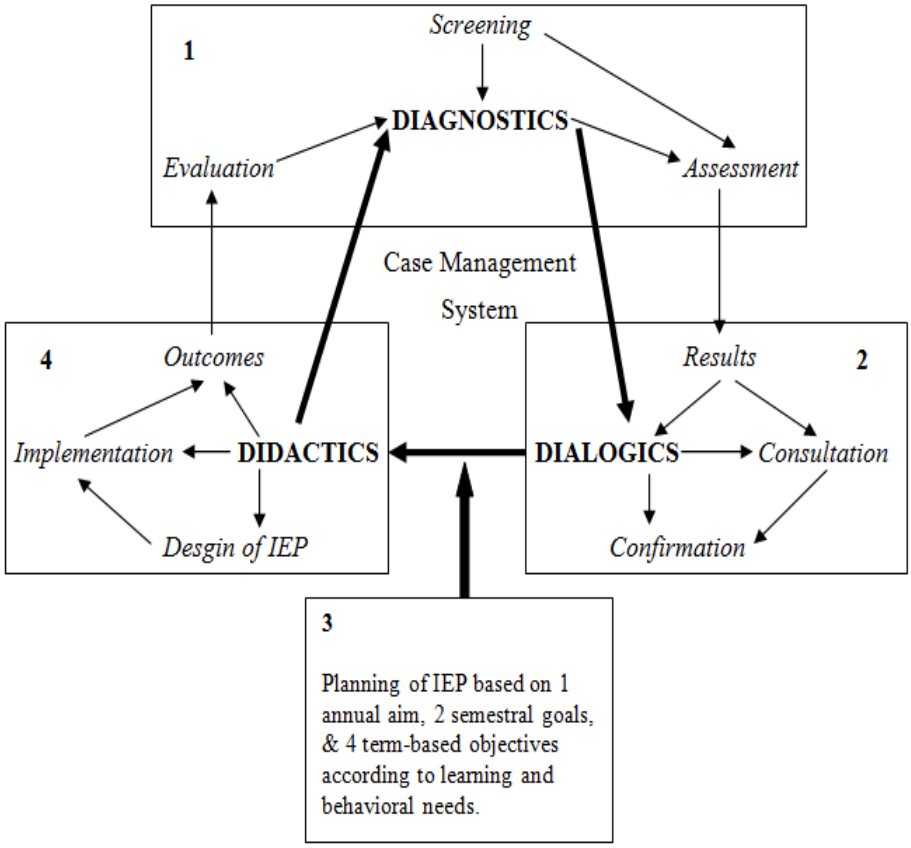

Note: 1 – Case Measurement; 2 – Case Consultation; 3 – Case Development; 4 – Case Intervention

Figure 5. The Triple-D Model of Case Management System

CONCLUSION

In summary, the Triple-D model of the primary CMS consists of three phases, i.e., Diagnostics, Dialogics and Didactics, with four components, i.e., 1 – Case Measurement, 2 – Case Consultation, 3 – Case Development, and 4 – Case Intervention, and each component with its various steps to be followed through. When this primary CMS model comes to a full cycle, a new iteration of the cycle with a newly designed IEP is initiated in the following year as the student moves up to the next level of treatment.

REFERENCES

[1] Amado, A. N. (2005). *Evaluation of case management model: Hennepin County Developmental Disabilities Program, 2004-05*. Minneapolis, MN: Institute on Community Integration, University of Minnesota.

[2] Bakhtin, M. (1939). Cited in Todorov (1984). *The Conquest Of America: The Question Of The Other*. UK: Manchester University Press,

[3] Bishop et al. (2008). *Diagnostic assessment*. In K. Chawarska, A. Klin, & F.R. Volkmar (Eds.), *Autism spectrum disorders in infants and toddlers: Diagnosis, assessment, and treatment* (pp.23-49). New York: The Guilford Press.

[4] Cerbin, B., & Kopp, B. (2005). Lesson study as a model for building pedagogical knowledge and improving teaching. *International Journal of Teaching and Learning in Higher Education*, *18*(3), 250-257.

[5] Chia, N. K. H., & Kee, N. K. N. (2012). The triple-D framework (diagnostics, dialogics and didactics) for training of special education professionals in Singapore. *Unlimited Human!* Summer issue, 36-46.

[6] Chia, N. K. H., & Kee, N. K. N. (2013). An integrated teaching-learning framework for special education in Singapore. *Academic Research International*, *4*(2), 416-426.

[7] Cooper, R. (2006). *Medicaid and case management for people with developmental disabilities: Optuions, practices, and issues* (Revised). Alexandria, VA: National Association of State Directors of Developmental Disabilities Services.

[8] Falck, R., Siegal, H. A., & Carlson, R. G. (1992). *Case management to enhance AIDS risk reduction for injection drug users and crack users: Theoretical and practical considerations.* In R.S. Ashery (Ed.), *Progress and issues in case management*, *NIDA Research Monograph 127*. Rockville, MD: National Institute on Drug Abuse.

[9] Gundem, B. B. (1998). Understanding European didactics: An overview on didactics. *Institute for Educational Research Report No.4*. Oslo, Norway: University of Oslo.

[10] Lewin, K. (1946). Action research and minority problems. *Journal of Social Issues*, *2*(4), 34-46.

[11] Lewis, C. (2002). *Lesson study: A handbook of teacher-led instructional change*. Philadelphia, PA: Research for Better Schools, Inc.

[12] Lidz et al. (1992). *Transitional case management: A service model for AIDS outreaches projects.* In R.S. Ashery (Ed.), *Progress and issues in case management*, *NIDA Research Monograph 127*. Rockville, MD: National Insittute on Drug Abuse.

[13] National Clearinghouse for Professions in Special Education/NCPSE (2008). *Educational diagnostician: Making a difference in the lives of students with special needs*. Airlington, VI: The Author.

[14] Oerbaek, K. (2009). *Didactics and didactisizing*. Unpublished Doctor of Philosophy (PhD) dissertation, University of Southern Denmark-Odense.

[15] Pearlman, S. (1984). *Early experiences with primary care*. In F.B. Glaser, H.M. Annis, & H.A. Skinner (Eds.), *A system of health care delivery: Volume 11 primary care assessment*. Toronto, Canada: Addiction Research Foundation.

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[17] Qvortrup, L. (2007). Media pedagogy, media education, media socialization and educational media. *Seminar.net: International Journal of Media, Technology and Lifelong Learning*, *3*(2), 1-20.

[18] Research and Training Center on Community Living (2008). Innovative models and best practices in case management and support coordination. *Policy Research Brief, 19*(1), 1-11.

[19] Ridgely, M. S., & Willenbring, M. (1992). *Application of case management to drug abuse treatment: Overview of models and research issues*. In R.S. Ashery (Ed.), *Progress and issues in case management*, *NIDA Research Monograph 127*. Rockville, MD: National Institute on Drug Abuse.

[20] Stahler et al. (1995). Evaluating alternative treatments for homeless substance-abusing men: Outcomes and predictors of success. *Journal of Addictive Diseases*, *14*(4), 151-167.

[21] Todorov, T. (1984). *Mikhail Bakhtin: The dialogical principle* (W. Godzich, Trans.). Minneapolis, MN: University of Minnesota.

[22] Vanderplasscehn et al. (2004). The development and implementation of case management for substance use disorders in North America and Europe. *Psychiatric Services*, *55*(8), 913-922.

[23] Vanderplasscehn, W., et al. (2007). Effectiveness of different models of case management for substance-abusing populations. *Journal of Psychoactive Drugs*, *39*(1), 81-95.

[24] Woodside, M., & McClam, T. (2002). *Generalist case management: A method of human service delivery*. Florence, SC: Thomson Learning.