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FEATURE

DESIGNING HYBRID TEACHING STRATEGIES FOR MULTIAGE LEARNERS

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Abstract. *Diversity is pervasive in classrooms today, highlighting a variety of student needs. An eclectic approach towards teaching and learning allows for customized delivery of lessons. Consequently, the hybridization of teaching models and strategies creates effective instruction, potentially supporting students' varied learning styles and multiple intelligences. It addresses the limitation of utilizing a single pedagogic approach to achieving better learning outcomes. This theoretical paper explores the possibility of designing hybridized teaching strategies for multiage learners. It defines hybridized teaching strategies, highlights the scope of the teaching strategies or models of teaching to be combined, and discusses the approach to multiage learners. The paper presents the possibility of utilizing teaching models that include the personal family, information-processing family, behavioral family, and social family to design such a hybrid of teaching strategies for the instruction of multiage learners.*

Keywords: teaching models, hybridized teaching strategies, multiage learners, differentiated instruction

Introduction

Effective instruction is a result of several combined factors that support learning (Mennella, 2018). One of these factors is the hybridization of teaching strategies. Kolesnikova (2016) states that a combination of teaching methods promotes knowledge formation. This can result in better learning outcomes because it supports different learning domains, thus, addressing the limitations of using only one pedagogic model (Víllora et al., 2018). When the teacher utilizes a variety of teaching strategies in teaching a concept, the result is the development of both the right and left brain hemispheres (Beck, 2001). Hybridizing teaching

strategies also address students' different learning styles and multiple intelligences (Fernadez-Rio, 2014; Lopez, 2008). Complementing teaching strategies with students' learning styles improves the teaching process and students' achievement (Mirjeta, n.d.) because students positively respond to the instruction and acquire the desired knowledge and skills (Guadagni, 2015).

It is the role of the teacher to bring students to a higher level of a learning experience (Brown, 2007). Doing so requires careful planning of the teaching methodologies and performance tasks that satisfy higher learning expectations. However, in reality, there is no ideal teaching strategy that satisfies learning needs, including the reinforcement of the students learning style (Mirjeta, n.d.) and multiple intelligences. Moreover, Mupa and Chinooneka (2015) mention that some teachers do not possess the competence in implementing a variety of teaching methods, resulting in students' low performance in school. Moreover, the instruction seemed to revolve around lectures and the use of textbooks instead of multimedia presentations, while parental support is modest and limited.

The significance of implementing a variety of teaching methods to support students' learning styles is irrefutable (Fernadez-Rio, 2014; Lopez, 2008). However, there is limited literature discussion on how to design and implement hybridized teaching in instruction. Moreover, teachers' training does not include the utilization of combined pedagogical models in teaching that result to a limited implementation experience added with time constraints (Víllora et al., 2018). Therefore, there is a need to know and practice what types of teaching strategies can be combined so teachers can implement them with executive control. This theoretical paper introduces the different instructional models and elaborates on the significance of designing a hybrid of these models. Moreover, this seeks to suggest possible teaching models that can be combined and implemented to provide effective learning to multiage learners.

Review of the Literature

This theoretical paper presents a discussion on designing a hybrid of teaching strategies for multiage learners. The literature review includes the definition of hybridizing teaching strategies, teaching strategies or models of teaching to be combined, and the approach to multiage learners. Following is a short description of each of these topics as supported by literature.

Hybridizing Teaching Strategies

Hybridizing teaching strategies may be defined as the combination of different teaching strategies (Fernadez-Rio, 2014) used "in an active learning environment to promote critical thinking, student engagement, and fact acquisition" (Powell et al., 2012, p. 47). There is no single instructional model that caters to all the learning needs of the students (Metzler, 2011). With this, it is important for teachers to innovate instruction and design a hybrid of different teaching strategies

to achieve the learning goal (Casey, 2014). There are different teaching models and strategies that can be implemented in the classroom for various subjects. However, the question of which are the best strategies to engage students in the process of learning remains. Incorporating various teaching strategies and models allows students to gain a deeper understanding of concepts through discussions, reflections, and elaboration (Powell et al., 2012). If the goal is to heighten the learning opportunities and potentials of the students, teachers may venture into hybridizing their teaching strategies.

Guadagni (2015) relates the hybridization of Western and Eastern teaching strategies as advantageous to alter rote memorization and lecture methods. This integration of the Western and Eastern instructional practices emphasizes a classroom that supports learning beyond the academe. This encompasses work ethics, personal accountability, gender equity, and skills development. Although most strategies can be used in isolation, they can and should be used together to maximize the effective learning experience as well as keep students interested and engaged (Sumeracki, 2017). This is due to the demands of the 21st-century learning community that are no longer mainly focused on information retention (Kenski, 2013) but rather aim at the critical selection of pedagogical actions (Víllora et al., 2018).

Literature shows that "teachers teaching pedagogy influence effective teaching" (Mupa & Chinooneka, 2015, p. 130). A combination of teacher-centered and student-centered teaching methods caters to students' learning interests and needs (Guirguis & Pankowski, 2017). Furthermore, Nicoll and Trautmann (1998) assert that there is ample evidence showing that students do not necessarily learn information the first time through and, therefore, require different methods and strategies before forming their cognitive structures. The integration of multiple methods and strategies of teaching can enhance students' participation, foster cognitive skills, reinforce the concepts, and aid mastery of the material. Hence, the best approach to teaching is by combining strategies that support teacher and student-centered activities (Bidabadi et al., 2016).

Teaching Strategies for Hybridization

Inductive and deductive teaching strategies are significant for effective student learning. They can be combined to attain learning goals while providing in-depth learning engagement (Rüütmann & Kipper, 2011). Joyce et al. (2015) discuss different teaching models and categorize them into four families, namely, (a) personal family, (b) information-processing family, (c) behavioral family, and (d) social family. These families of teaching models are discussed in the next section.

Personal Family

Personal family teaching models support the development of students' self-awareness and personal responsibility. These are grounded in two purposes such as developing students' mental and emotional health for self-development and understanding interdependence to build one's future. Under this category are non-directive teaching and enhancing self-esteem (Joyce et al., 2015).

Carl Rogers developed Non-directive teaching to help students attain self-understanding and autonomy. As a teaching model, it encourages interaction that allows teachers to help students define the problem and find the solution. On the other hand, Abraham Maslow introduced an enhancement of self-esteem or positive self-concept that aimed to develop self-actualization among students. He stated that it is through satisfying the physiological and psychological needs of man that self-actualization is achieved (McLeod, 2020). In the education context, teachers should understand students' individual differences and help them grow and develop a positive disposition that can result in better engagement with others (Joyce et al., 2015).

Information-Processing Family

Information-processing models focus on making sense of the concepts, facts, or information. These cover the cognitive activity of the students. Strategies in this family include inductive thinking, concept attainment, picture-word inductive model, scientific inquiry, inquiry training, mnemonics, synectics, and advance organizers (Rafeedalie, n.d.).

The *inductive thinking* of Hilda Taba and *concept attainment method* of Jerome Bruner specify the development of classification skills and hypothesis testing. The *scientific inquiry method* of Joseph Schwab and the *inquiry training* of Richard Suchman deal with the collection of information to build concepts. Moreover, the *mnemonics* of Michael Pressley, Joel Levin, and Richard Anderson and *advance organizers* of David Ausubel are concerned with the acquisition and organization of information for better retention. Learning how to read and write as well as developing students' language skills can be better approached by using *picture word inductive* of Emily Calhoun. Lastly, William Gordon's synectics helps develop students' creative thinking skills through metaphors and analogies. Using synectics in the instruction allows the generation of a new perspective on the concept being studied (Joyce et al., 2015).

Behavioral Family

This family of teaching models deals with behavior modification and behavioral techniques in learning. This has a long history back in Pavlov's experiment of classical conditioning in 1927, Thorndike's reward learning in 1911 and 1913, and B. F. Skinner's human behavior in 1953. The teaching strategies

under the behavior family include direct instruction, simulation, social learning, explicit instruction, mastery learning, program learning, and anxiety reduction.

Direct instruction developed by Thomas Good and colleagues, *mastery learning* of Benjamin Bloom, and *programmed learning* of B. F. Skinner offer students a better way to master academic concepts and factual information. On the other hand, the *simulation* of Carl Smith supports students' mastery of complex skills and concepts, while the *social learning* of Albert Bandura and *anxiety reduction* of David Rinn, Joseph Wolpe, and John Masters permit control and behavior management (Joyce et al., 2015).

Social Family

The teaching models belonging to the social family enable the building of synergy or collective energy. This enables the establishment of an effective classroom repertoire that promotes collaborative learning and interaction and enhances academic achievement (Johnson & Johnson, 1989). In a cooperative classroom culture, students can develop their social skills and improve the beauty of multiple intelligences. The teaching models include partners in learning, structured social inquiry, group investigation, social inquiry, laboratory method, role-playing, and jurisprudential inquiry (Joyce et al., 2015).

The *structured social inquiry* of Robert Slavin and colleagues, *group investigation* of John Dewey and colleagues, and *social inquiry* of Byron Massialas and Benjamin Cox promote collaborative inquiry and social development while solving problems and developing logical reasoning. *Partners of learning* by David and Roger Johnson and Elizabeth Cohen and *role-playing* by Fannie and George Shaftel enable values development by assuming roles and responsibilities that promote positive social interdependence. Lastly, the *jurisprudential inquiry* of James Saver and Donald Oliver deals with beliefs and analysis of policy issues and values that affect society (Joyce et al., 2015).

Teachers have the freedom to liberally hybridize these teaching models and strategies to promote students' engagement and active learning. They may combine the processing-information models with social models and other possible combinations depending on the skills needed to be developed among students. Doing so increases students' ability to understand and make sense of the concept, especially in a classroom with diverse students (Xin et al., 1999). Further, not only that instructional activity is structured, but also the integration of technology and cooperative atmosphere supports students' achievement with no one being left behind. Regular and special education students alike can work together in achieving learning goals (Friend & Bursuck, 1996). With such benefit, this idea can be readily adopted in all classroom situations, including online and flexible learning. Table 1 summarizes various teaching models that can be combined to provide an active learning engagement to multiage learners.

Table 1

Hybrid Models of Teaching

Strategy	Family	Developer/s	Purpose	Rationale for Hybridization
1. Synectics **2. Double circle/Inside-outside circle**	1. Information Processing Family 2. Social Family	1. Bill Gordon	1. Synectics develops critical and creative thinking skills. 2. Double circle gives opportunities for students to share their insights with their peers about an issue/concept.	While synectics stimulates critical thinking and creative expressions through the use of metaphors and analogies, double circle, a cooperative learning strategy, allows the sharing of these creative thinking with others and fine-tune understanding of the concepts.
3. Group investigation (GI) **4. Simulation**	3. Social Family 4. Behavioral Family	3. Herbert Thelen 4. Carl Smith and Mary Foltz	3. GI provokes problem-solving skills in a collaborative setting. 4. Simulation provides students opportunities to solve real-world problems.	GI and simulation are perfect partners in problem-based learning classes. As students investigate the causes of the problem and the possible solution to it, they are engaged in constant communication and interaction in the iterative process of designing solutions, such as the making of prototypes that address the problem.
5. Concept attainment model	5. Information processing	5. Jerome Bruner, Jacquline Goodnow, and George Austine	5. This helps students to analyze things systematically and develop their reasoning powers of students.	CA assists students in linking past knowledge with new information, critically analyzing, comparing and categorizing, while numbered heads together give the opportunity for each

6. Numbered heads together	6. Social Family	6. Terenzeni and Pascarella	6. This holds each student accountable for learning the material then promotes learning through cooperation and active participation.	student to share their learning as well as examine and strengthen understanding.
7. Taba teaching strategy model (Concept Formation)	7. Information Processing	7. Hilda Taba	7. This engages students in practice, in particular inductive reasoning.	While students are engaged in inductive thinking, analyzing attributes of given data sets, cooperative learning organization provide the opportunity for students to work together, assist one another as well as promote healthy discussions to arrive at conclusions.
8. Cooperative learning organization	8. Information Processing and Social Family	8. Joyce and Weil	8. These are ways of helping students engage in more productive behavior.	

Multiage Learners

Multiage means including or intended for people of more than one age group (Merriam Webster). "A successful multiage class is formed by placing together a balance of numbers of students of different age groups with a range of achievement levels" (Leier, n.d., para. 2). The different age levels result in diverse preferences in the learning styles. These differences in learning style have received increasing attention at all levels of education over the last several years as educators and administrators seek ways to continuously improve students' learning (Chen et al., 2014). It is important to recognize the needs of learners for instructors to facilitate learning needs. What the learner wants to get out of the learning experience and his or her current state of knowledge, skill, and enthusiasm is oftentimes determined by the age group the learner falls into (Minderhout n.d.). The next segments discuss the learning interests of the K to12 learners and higher education learners.

K to 12 Learners

Bastable (1997) identified different age-specific learning characteristics. Awareness of learners' characteristics assists in the selection of appropriate teaching strategies. At the preschooler level, learners are mostly egocentric, animistic in their thinking but highly motivated by curiosity with active imagination albeit being prone to fears. Strategies that could elicit a warm, calm approach and build trust should be considered. Furthermore, the teaching approach

should provide a safe, secure environment. Using simple drawings and stories, playing therapy while allowing objects for manipulation, and stimulating the senses would be effective.

Learners become more realistic and objective during school-aged childhood. During this period, learners can understand cause and effect and establish deductive and inductive reasoning with concrete information. Due to variable rates of physical growth, learners require immediate orientation to absorb true concepts (Epps & Smith, 1984). Strategies that involve group activities, independence, and active participation are crucial for this age group. Analogies to make invisible processes real with logical explanations should be used. Activities that require drawing, models, dolls, painting, audio, and videotapes should be encouraged (Bastable, 1997; Fischer & Bullock, 1984).

At adolescence, learners exhibit abstracts and hypothetical thinking as well as building on past learning. The reasoning is done by logic and understanding scientific principles. The desire for social acceptance is the driving force for motivation and where peer groups are considered important (Noguera, 2004). However, learners of this age group tend to feel vulnerable, resulting in intense personal preoccupation. The selection of teaching strategies for this age group should be based on established trust and authenticity. As peer supports and influences are eminent, careful considerations should be given to negotiating changes while making information meaningful to learning.

Higher Education

Young adulthood learners tend to be autonomous, self-directed, and use personal experiences to enhance learning (Whiteman & Hudson, 2000). The ability to analyze critically as well as make decisions about personal, occupational, and social roles is evident as they continually grow to be competency-based learners. Teaching strategies that evoke problem-solving skills, draw meaningful experiences and that focus on the immediacy of the application must be considered. Cooperative learning should be encouraged for active participation but allow the learners to set their own pace—be self-directed (Johnson & Johnson, 1989). Applicability of new knowledge through role play and hands-on practice strategies is preferable (Bastable, 1997).

Although Curry (1987) proposed different learning approaches such as (a) instructional preference style, (b) information processing style, and (c) cognitive processing style, it is necessary to understand individual differences among multiage learners. Chen et al. (2014) also clarified that "all individuals can have different styles of learning" that need catering and fostering. Psychologist Jean Piaget's work on cognitive development is a helpful guide in knowing what teaching approach to take for teaching multiage learners. It is, therefore, important for instructors to consider incorporating instructional activities that help develop students' skills of testing theories to develop solutions (Chen et al., 2014). Fox

(n.d.) emphasizes that although different approaches must be taken with varying groups of age, students of all ages benefit from at least one common learning technique.

Conclusion

The hybridization of teaching models and strategies permits effective implementation of instruction because it supports students' different learning styles and multiple intelligences. This also allows the development of students' brain hemispheres by switching from the right to the left and left to the right hemisphere. Moreover, regular and special education students can thrive competently in a supportive learning environment that offers a variety of learning engagement. The teachers have the liberty to creatively combine the various teaching models and strategies that address the learning needs of the students. The demand of the 21st-century learning community for flexible learning is also an excellent milieu to a better implementation of hybrid teaching models. Hence, administrators could greatly benefit from providing special training that allows teachers to learn and implement hybrid teaching strategies to achieve executive control. The value of investing time and energy in this endeavor is priceless as students' have been shown to progress and flourish in schools.

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