Application of Behavior Analysis within Education

Introduction

Behavior analysis can be used in a multitude of environments and be integrated within different disciplines as an effective approach to change. The educational field is one area where behavior analysis can demonstrate change through the development of socially significant behaviors as well as access to a service delivery model that is evidence-based and impactful.

Several families struggle to gain access to equitable education for their children. This has resulted in numerous school meetings and phone calls to discuss behavioral concerns or needs that are not being met. Access to services and education early in one's life can directly impact an individual's academic performance, cognitive abilities, and behavioral outcomes.

Additionally, higher education populations are becoming more diverse within the classroom setting. These settings are now viewed as being multiracial, multicultural, and multigenerational. This diversity can impact the culture of the classroom as diverse learning histories among the students shape educational learning experiences.

In this course, participants will learn to (1) discuss ideas that can increase the probability of students receiving access to equitable education, (2) identify ways that behavior analysts demonstrate humanity, and (3) discuss ways to develop a culturally responsive classroom.

Section 1: Access to Equitable Education

Several families often find difficulty when trying to gain access to equitable education for their child. Some of these families may be asked to attend numerous school meetings, make daily phone calls so that they are able to understand various policies on busing, or attend frequently held meetings with

different teachers or administrators of the school in an attempt to address the behavioral needs of their child. Literature exists that spans several decades of research which indicates that early access to education can directly impact a child's academic achievements, cognitive abilities, and outcomes that concern the child's behaviors (Hamre & Pianta, 2001). As a result, these advances in equitable education have resulted in a multitude of laws (i.e., Individuals with Disabilities Education Act [IDEA], 2004) as well as programs (i.e., Head Start) that are directed at ensuring that all children have access and fair treatment in regard to their educational needs. Despite these advances, the fight for equitable education still exists for children with and without disabilities. Since behavior analysts have knowledge in motivation, learning, and social behavior, they can provide valuable contributions concerning consultation services for teachers and families within an educational setting. Behavior analysts are able to utilize evidence-based services within an educational setting to increase desired behaviors (i.e., social skills, academic learning skills, functional communication) and decrease undesired behaviors (i.e., severe problem behavior). As a result, behavior analysts may play a vital role in ensuring that equitable education exists for clients within an educational setting.

Children that have been diagnosed with a developmental disability and who are enrolled in a public school setting are legally entitled to an education that is appropriate (IDEA, 2004). An equitable education includes a free and appropriate public education, an evaluation as well as identification for special education services, an individualized education program (IEP) that contains educational goals, an education that is provided in the least restrictive setting, adherence to due process safeguards, and the inclusion of both parents and students during the decision making progress. Although these legal protections are known and exist for students with disabilities under IDEA, there are still exclusionary practices that exist. When this occurs, it causes students without disabilities to be excluded from

an educational setting at a much higher rate than that of their peers (Wesley & Ellis, 2017). Therefore, equitable education may not be fully achieved for all students and instead will require further dialogue.

Students with a disability are not the only individuals that undergo inequities within their educational setting. For over 25 years, disparities of minority representation as it exists within school discipline data have been revealed (Krezmien et al., 2016). Evidence has been found that supports a significant overrepresentation in office referrals (Lietz & Gregory, 1978), suspensions (Cooley, 1995), and expulsions (Gilliam & Shahar, 2006). Research has indicated that minority preschool students are receiving expulsions and are being suspended at a rate of four times more than when compared to their peers (Gilliam & Shahar, 2006). As a result, these exclusionary practices result in minority children being placed at a much greater risk of being identified as an individual with a disability (Connor et al., 2019).

This aforementioned information makes note that when the discussion of equitable education is had, it may be valuable to pay attention to the minority status of an individual when analyzing the problem behavior of children with and without developmental disabilities. Some of the factors that may be associated with minorities being expelled and suspended at much higher rates than that of their peers may include teachers and administrators within the school setting that engage in bias-based behavior (De Houwer, 2019) as well as a lack of evidence-based teaching interventions (Kestner et al., 2019). Additionally, as children continue to have the right to effective interventions and treatment practices, behavior analysts that are housed within an educational setting are ethically obligated to advocate for these students by ensuring that relevant variables are included within their analyses throughout the duration of time that services are provided.

Biased-based behavior or implicit bias is known as a behavioral phenomenon (De Houwer, 2019). Implicit bias is known for something that people do, not something they have as a characteristic. Additionally, bias is behavior that is influenced through an implicit manner through the use of subtle cues that serve as indicators for the social group that others belong to. Behavior analysts are to become a part of the solution as others adopt a behavioral perspective toward a concept that most find difficult to operationally define and measure (i.e., bias). Behavior analysts are known for being able to objectively define and measure variables. Therefore, behavior analysts should also be able to include behaviors that are indicative of bias within their analyses so that they are able to better provide services to those they serve.

As a behavior analyst takes part in consultation within a classroom setting, it is vital that they are able to assess different environmental variables and conditions that may evoke either appropriate or inappropriate behaviors. These behaviors may include the rate of reprimands that a teacher delivers to a student, the number of praise statements that a teacher makes to the students in the classroom, and the demands that are placed on the students by the teacher (Kestner et al., 2019). Additionally, a behavior analyst could evaluate whether or not there are any differences in any of these variables for students of a particular race as a measure of potential bias. As a result, this may serve as an objective measure for evaluating variables that are associated with potential bias as well as allow behavior analysts the opportunity to better serve their clients. This may allow for an empirical approach to be employed by behavior analysts. Through this approach, the problem is able to be clearly identified, subjectivity is able to be removed from the context, and a solution can be presented directly to those concerned.

A behavior analyst may work with a teacher in a collaborative manner to teach them various skills, specifically on how to deliver behavior-specific statements

that can increase the exhibition of appropriate behaviors and decrease behaviors that are viewed as being inappropriate during a period of time where those behaviors that are inappropriate are more likely to happen. These behavior-specific statements can be thought about through the use of classroom evidence-based practices. Examples of evidence-based classroom practices include the integration of frequent active student responding (ASR) as well as various opportunities for students to answer during teacher instruction (MacSuga-Gage & Simonsen, 2015), providing praise statements that are behavior-specific (Floress et al., 2017), providing the student with clear signals for the beginning of a transition between activities or environments (Embry & Biglan, 2008), and integrating group contingencies into the lessons that are taught by the teacher (Maggin et al., 2017). Through consistent application of these technologies across all students, a powerful impact can be made for those from all backgrounds and either with or without a disability. The behavior analyst should work to carefully analyze the various variables within the classroom setting, determine if bias exists within the environment, provide the teacher with feedback regarding any variable teacher-student interactions that may exist, and follow up these conversations with behavioral skills training that teach different evidence-based classroom practices so that generalization can occur for functional alternative behaviors across different environments within the school day.

It can be difficult to navigate service provision within a school setting, particularly when a behavior analyst is in a consultative role. When in this role, it may be difficult for a behavior analyst to have sensitive conversations with teachers as they may be viewed as an outsider. Regardless of these views, when a behavior analyst has been asked to assess a student's behaviors, the role of the behavior analyst is to collect data as it pertains to the various motivational operations, antecedents, behaviors, and consequences as they occur in the student's daily school schedule and environment (Fong et al., 2016). Even though these variables

are vital to evaluate as part of a behavior analyst's consultative services, it may also be just as important for the behavior analyst to collect data regarding teacher-student interactions and how these behaviors may differ across various students. A behavior analyst can discuss the disparities that exist in regard to access to services for culturally and linguistically diverse groups as well as improve the environment within the classroom through operationally defining and measuring all variables that are relevant. This is a vital step in achieving equitable education for all students within the school environment.

Section 1 Personal Reflection

What are some methods that you have used to determine if bias exists within your educational environment? What are some techniques you can employ to reduce this bias and to further achieve equitable education for all students?

Section 1 Key Words

Bias - a behavior that is influenced through an implicit manner through the use of subtle cues that serve as indicators for the social group that others belong to

Section 2: Demonstration of Humanity within Behavior Analysis

Over time, there have been numerous misconceptions and criticisms regarding the scientific rigor and replication methods that are utilized in studies, the science, as well as for those adults that identify as autistic. As we continue to adhere to the tenets of behavior analysis, continue to follow strict procedures, utilize data to inform our decisions, and offer technological descriptions, those within the field of behavior analysis have sometimes lost the ability to be able to effectively communicate with those receiving services as well as our colleagues that are

outside of our discipline. Therefore, it is important to discuss some of those challenges through the identification of humanity and the heart of applied behavior analysis (ABA).

A common misconception that has been identified within the language that has been used from the 70s and 80s refers to a cure for individuals diagnosed with autism spectrum disorder. This misconception identifies ABA as a method for making individuals with autism appear as normal as possible. The overarching goal of behavior analysts is to help all individuals that are receiving services, not just those diagnosed with autism spectrum disorder, reach their goals to their fullest potential so that they can be as independent and successful as they possibly can be. Through various research studies, it has been revealed that by not providing effective interventions, this can result in increased behaviors that may impede learning and relationship opportunities, increase the financial cost of families involved, decrease employment for families, increase support needed by others, as well as various other items (Horlin et al., 2014). All individuals should be provided with opportunities to learn and achieve happiness at the greatest level as well as independence, self-determination, and self-advocacy. Additionally, they should be provided with access to the most effective teaching methods to help them achieve these goals (Walsh, 2011). Most behavior analysts conduct their line of work because they genuinely care about people and want to use the best evidence to help those they provide services to achieve their fullest potential. Therefore, behavior analysts use data and rigidly adhere to procedures that can be used to maximize potential with the end goal being that of independence instead of seeking normalcy.

In 1998, the Behavior Analyst Certification Board (BACB; BACB, 2020) was developed in an attempt to standardize the practices used by behavior analysts and in an attempt to protect those that receive services. Some behavior analysts were already being governed by other regulatory bodies (i.e., licensed

psychologists, social workers); however, there were still many behavior analysts that were not as well as some that stated they were providing ABA-based services without any training or credentials. As of today, there are over 40,000 practitioners that are certified by the BACB and that can be located through a searchable registry. Additionally, the BACB helps to guide the development of various state laws that coincide with licensure. The BACB has also established a code of ethics to which behavior analysts are to abide by. This code of ethics helps to protect anyone involved from perceived overgeneralizations of poor implementation of various practices and to help ensure that poor practices are not a valid reflection on all behavior analysts. Within this code of ethics, there are guidelines that coincide with conflicts of interest, the general welfare of the individual receiving services, informed consent, research practices, and collaboration efforts with other individuals. Furthermore, the ethics code far exceeds those standards and includes the fundamental groundwork of the science of ABA such as data-based decision-making, inclusion of evidence-based practices, guidance for use of the least restrictive procedures, and a heavy focus on interventions that are based on principles of reinforcement. As a result, behavior analysts that align their work with the ethics code are also demonstrating their humanity within their work through a multitude of ways.

Evidence-based Interventions

It is human for behavior analysts to ensure that the individuals that are receiving services are provided with treatment options that have a history of success and are able to maximize an individual's potential. Therefore, it is important that a behavior analyst does not use a treatment intervention that is not evidence-based as these can waste time of those involved and resources that are available. Additionally, it is also vital that a behavior analyst does not use a procedure they like despite whether or not it has scientific validation or is harmful. In turn, the

use of evidence-based interventions can reduce the need for medications or restrictive environments to manage behaviors. Humanity is further exemplified by a behavior analyst's effort to reduce the need for medication or the use of a restrictive environment.

Individualized Interventions

A behavior analyst ensures that they are committed to individualized treatment for the individuals that they provide services to. This individualized treatment includes choosing the most powerful motivators as well as selecting targets that are based on the family's and individual's needs. The norm of most behavior analysts is to shy away from a cookie cutter approach and instead integrate the individual's characteristics, needs, culture, and values into the services that are delivered. The ethical code that behavior analysts abide by ensures that individualization is the basis for the framework of the services that are provided.

Analysis of Data

When outcomes are to be measured and justification needs to be made regarding decisions, it is more humane to be objective rather than subjective. Behavior analysts spend significant time in data collection so that they are not wasting the time of the individuals that they provide services to. Through data collection, behavior analysts are able to have a clear method of assessing improvements that clients make, even if these improvements are small. The use of data helps to guide and inform a behavior analyst's decision-making which further insinuates their commitment to individualized services that are provided to their client. Continued data collection allows adjustments to be made and for the behavior analyst to determine if these adjustments led to the outcome that was desired. All providers, despite the discipline that they are associated with, should make an effort to collect and use data at this level of care. Behavior analysts show a concerted care

for their clients' time and demonstrate this by the data they use. Additionally, behavior analysts care about the time and resources available to their clients and have a desire to have their clients achieve the most that they possibly can in the least amount of time required. Those professionals that are not committed to continuous data collection are not positioned as well as behavior analysts to benefit in an objective manner or to avoid wasted time. It is important to keep in mind that when a professional selects an intervention method, it should be selected with the science in mind, and not how it relates to one's ego or comfort level. As a result, if an intervention choice does not demonstrate results, the principles of science should be utilized to make any adjustment that is necessary so that the client benefits.

Conceptualization and Selection of Goals

Ideally, the selection of goals is used to build up a skill set for the individuals that received services. Goals are selected for individuals so that they are provided with functional and appropriate skills as a method for increasing their success within their current life and in their immediate environment. These individuals are taught various skills so that they are able to achieve success in the future in the least restrictive environment possible through new repertoires of skills. These new repertoires allow for new environments to be established and for different levels of self-determination to be possible. A behavior analyst's versatile approach allows them to focus on both small skills while simultaneously being able to focus on the bigger picture for the individual. This method helps a behavior analyst to not be restrained by goals that only target the deficits of an individual or provide the client with a sense of normalcy but instead encourages broader goals such as independence, self-determination, and access to other opportunities that become available.

Parents are Partners

In the past, there have been some mindsets and approaches that have put forth ideas that are untested or invalidated that refer to a parent causing a child's autism diagnosis. Understandably, this approach can be unsettling and disempowering for parents, particularly when a child is newly diagnosed. Instead, behavior analysts have continually embraced the notion that parents as well as other family members are vital as agents of change. Additionally, years of parent training efforts further support this belief as well as reflect this investment and recognition. As the field of behavior analysis continues to evolve, behavior analysts continue to engage family members in all aspects of intervention, not just the implementation component. Cultural differences are recognized as well as represented within the interventions that are selected for implementation and in the communities that are being served by behavior analysts. Furthermore, this partnership also extends to other providers that come in contact and work with the individuals that behavior analysts serve such as case managers and teachers.

The Method of Intervention Implementation

Interventions that have a framework within the field of behavior analysis are delivered in both a transparent and detailed manner so that other individuals are able to implement these interventions the same way. Particularly for skill acquisition efforts that are designed for individuals with learning challenges, the delivery of these skills is broken down into components of learning that are easily attainable. These goals use structure, consistency, and repetition as the basis for learning. These individual programs are meticulously designed so that they work towards goals that are part of a larger set that are related to self-determination, independence, and a much higher quality of life.

A Commitment to Reinforcement

There are several points concerning reinforcement that should be made that further demonstrate how behavior analysts show their humanity. A behavior analyst understands that if a desired change would happen without the use of reinforcement, then the change would already be occurring. It is important and humane that an individual is provided with a multitude of opportunities that will further increase their motivation (i.e., gain life skills, increase independence). As a result, a behavior analyst provides considerable effort in the use of reinforcement both strategically and intentionally. Next, a behavior analyst understands that reinforcement selection needs to be individualized through the use of flexibility and creativity and so that it is also matched to the function of the behavior when reduction efforts are made. Thirdly, selection of reinforcement is a journey and will need to be adjusted on a continual basis. Lastly, pairing is an essential component of reinforcement. A relationship that is considered to be reinforcing between the provider and the learner is the key element in the framework for behavior change and allows for learning to take place.

Outcomes are Endured and Carryover

A behavior analyst has the goal that change should persist over time without the individual being prompt dependent or without the need for others to be present for a specific behavior to be exhibited. Treatment success rests within the sustainability of a behavior to be exhibited and carried over across settings, situations, and people. Each skill that an individual learns should be grounded within a unique set of tests as the end goal. For example, an end goal could be that a skill is able to persist and generalize across various members of the community or that fluency and generalization are present across settings.

Challenging Behaviors

Most often, people will refer to challenging behaviors by using terms such as maladaptive or dysfunctional. Behavior analysts understand that these behaviors are actually adaptive and functional for some individuals as a method for getting their own needs met. The communicative intent of challenging behaviors can be identified through use of functional assessments as well as through the use of functional analyses. Determining motivation that underlies the exhibited behavior is an important first step in understanding and addressing a challenging behavior. A functional assessment that is adequate and reliable will allow a behavior analyst the opportunity to respect the communicative goals of the behavior that is being exhibited, while also determining other ways to help the individual meet these communicative needs. Additionally, a comprehensive and functionally relevant behavior intervention plan can also provide an individual with a framework and more acceptable method for navigating their own environment, having their needs met, communicating what their needs are, and learning a response that is more appropriate for use within their environment.

Behavior analysts are continually learning. Furthermore, the efficacy and efficiency found within the field of behavior analysis is continually evolving and advancing. It is important for behavior analysts to continue to adhere to the Ethics Code that has been developed for behavior analysts, evaluate their own set of competencies, and ensure that the needs and skills for independence and self-determination of the individual receiving services are the foundation of each and every intervention that is implemented.

While a behavior analyst's work requires that of some technical skills, it also requires the use of good interpersonal skills. Behavior analysts should be knowledgeable on the promotion of open communication and relationship

building. These skills should be continually practiced through our responses with the people in which we work. Behavior analysts should:

- **Strive to be a team player:** Behavior analysts work with a team of individuals. This team consists of caregivers, family members, educators, and other service providers. Therefore, it is important to communicate in a manner that allows the behavior analyst to be aware of their body language and tone of voice. Additionally, they should avoid blaming others or suggesting that they are doing it wrong. The manner in which a behavior analyst communicates with others is important as it will influence the opinions that others will form about behavior analysis.

- **Avoid jargon:** In an effort to develop respectful relationships with clients and their families, it is important for a behavior analyst to use clear concise explanations in language that is easily understood. This will help facilitate active participation in goal setting and intervention design. Additionally, avoiding jargon will help to ensure that recommendations that are made by behavior analysts are accessible and able to be understood.

- **Receptiveness and responsiveness to feedback:** In a continued effort to build relationships with clients and colleagues as well as continue to acquire new skills and develop as a professional within the field, a behavior analyst should openly listen to feedback and suggestions from other clients, caregivers, team members, and managerial staff. Additionally, it is important to be responsive to feedback and change one's behavior in response to feedback or to compromise with others.

- **Social validity is the basis of our work:** Social validity encompasses several characteristics such as the significance of the targeted behavior, the importance of the results, and the appropriateness of the intervention for the individual that is receiving the services (Hanley, 2010). Information that

is related to social validity should be gathered from the individual receiving the services and so that it is at the forefront of the planning of educational programs and behavioral interventions.

- **Relationship-based:** A behavior analyst should work to develop and maintain relationships with others, especially those that they are working with. Interacting and working with a behavior analyst should be reinforcing for others. Clients and caregivers value an individual that listens, collaborates, shows compassion, and conveys empathy (Taylor et al., 2019). A behavior analyst should ask questions and listen without becoming defensive.

- **Develop interventions that are applicable within one's daily life:** A behavior analyst should integrate the information that they know about the client's daily life and environment into their planning. An intervention that requests too much from a caregiver or that is designed with little client collaboration runs the risk of not being successful. Therefore, it is important to understand that agreed upon priorities and environmental variables can change over time and ongoing conversation with clients is vital when planning an intervention.

The success of a behavior analyst's work rests within the use of evidence-based practices, a commitment to the principles of social validity, and the mindset that clients are able to acquire skills that allow them to experience new opportunities. As a behavior analyst embraces the humanity of ABA, they are working with others to create a positive change in the lives of others that is significant, maintainable, and lasting.

Section 2 Personal Reflection

Are there other methods in which a behavior analyst can demonstrate humanity through their work? What methods have you previously used to demonstrate humanity and in what areas would you like to further develop?

Section 2 Key Words

<u>Humanity</u> - the study and understanding of human behavior, encompassing the complex interactions between an individual's internal states, environmental factors, and their observable actions, with a focus on applying scientific principles to promote positive behavior change and improve quality of life

<u>Social validity</u> - the extent to which the goals, procedures, and outcomes of an intervention are meaningful and acceptable to the individuals involved, including the clients, their families, and other stakeholders

Section 3: Culturally Responsive Classroom

Populations within educational settings have become more diverse as the years progress in regard to race, culture, and generation. It is now common for teachers to instruct within a classroom setting that is multiracial, multicultural, and multigenerational. Within these diverse backgrounds that can be found within a classroom setting, a multitude of learning histories are also found which influence a student's ability to participate in the educational environment. Older learners may also bring a more complex learning history to the classroom as they have encountered different educational and life experiences than that of younger learners (Caruth, 2014). Other students may be independent thinkers or strong communicators with a drive to be hard workers due to various cultural variables that they encountered in their history.

As diversity within educational settings increases, professors and educators alike will need to establish inclusive learning environments as well as continue to be aware of the students' and their own learning histories. The use of culturally relevant education (CRE) recognizes that a learner's cultural background, age, socio-economic status, ability, language, interests, and lived-in experiences help to prepare a student for learning within a student-centered educational environment (Ladson-Billings, 1995). This type of environment helps to develop critical thinking and one's ability to connect with other individuals in the learning environment.

Teachers and other educators are able to work effectively with students in cross-cultural situations through development of cultural competence. Cultural competence is a system of behaviors, beliefs, and policies that allow others to work effectively with individuals from diverse backgrounds such as generation, race, culture, ability, and socio-economic status (Conners, 2020). Within the educational environment, cultural competence includes instruction that is centered around self-awareness, cross-cultural application, and diversity. It works to confront cultural bias and understand cultural identity (Fong et al., 2016).

Most often, students and educators have diverse backgrounds that are different from each other. When these situations occur, it is important for an educator to evaluate their own cultural influences and to accept that culture makes a difference in how one teaches and one learns (Dennison et al., 2019). As one teaches and others learn from a culturally responsive framework, it is highly likely that emotional responses will be exhibited as some material may have been conditioned as aversive. Therefore, strategies should be developed that allow for these types of responses to be tolerated and not avoided (Wagner, 2005).

How to Develop a Culturally Responsive Classroom

A culturally responsive classroom includes clear and academically challenging expectations for all students within the educational environment. As courses are

designed, professors should determine how to incorporate strategies that provide clear expectations and create learning opportunities that are relevant to each student.

Promote Contingencies

In an effort to make expectations in a CRE environment clear, the educator should add a diversity statement to the syllabus that relays the educator's commitment to and expectation for equity and diversity within the educational environment. This will help to encourage equity through antecedent events as well as how to respond to instances of discrimination through the use of consequence events. Educators should focus on creating a culturally responsive classroom by instructing and engaging students through the use of empirically-sound interventions. As a result, tactics should be employed within the classroom setting to increase overt student participation by maximizing learning opportunities, allowing for ongoing assessment of learning, and demonstrating to the students in the classroom environment that their presence is valued.

Learning Opportunities

One technique that can be utilized to evoke responses from students in the educational environment is that of ASR (Heward, 1994). This technique allows educators the ability to identify those students who are learning and those who are not. Through this method, educators are able to determine when learning opportunities should be modified so that the needs of all students are being met. Furthermore, interaction among students within an educational environment allows for diversity awareness. Students view interaction to be the basis of a diverse classroom (Maruyama et al., 2000). Critical consciousness, which is a critical aspect of CRE, refers to an emphasis in engagement among students so

that they are able to learn to think in a critical manner while relationships with colleagues and educators are developed.

In-class Exercises

One method for increasing student responding is through in-class writing exercises (Butler et al., 2001). These exercises should be short in length and include a small group discussion. Students are then able to be paired up or placed into small groups so that their written responses can be reviewed prior to sharing their ideas with the larger group. This allows students the opportunity to develop responses and share ideas in a potentially smaller, safer group prior to revealing their responses with the group at large. This can help to increase a student's self-awareness and self-reflection which helps to increase interaction and support. Students in a CRE classroom should be provided with exercises that focus around readings that incorporate diverse authorship, examples from a multitude of cultures (Wang et al., 2019), and application of content among culturally diverse populations (Hinton & Seo, 2013).

Interteaching

Interteaching allows students to be provided with a preparation guide, prior to their class session, that outlines questions developed to guide the student through the reading assignment. Students are expected to answer these questions prior to the class session and be prepared to discuss their responses with their classmates. Each student will be paired with another student to review their completed guides while the educator moves around the classroom environment answering questions and guiding discussions. As the students finish their work together, the students are asked to complete a record sheet where they list topics or areas that they would like their educator to further elaborate on or discuss during the next class session.

Response Cards

Another method that can be used to evoke student responding is through the use of response cards. Response cards are signs that students are able to hold up at the same time to reveal their response to an educator delivered question (Shabani & Carr, 2004). These response cards can be preprinted or blank or can be a whiteboard that students can write on with a dry erase marker. After a student responds using a response card, the educator will state the correct answer and elaborate on the response if most students responded incorrectly.

As the educational environment continues to diversify, educators must be committed to cultural responsiveness as they continue to integrate the most current evidence-based teaching procedures. This will allow for educators to create a learning environment that integrates culturally relevant education into the curriculum while incorporating the history of each learner.

Section 3 Personal Reflection

What are some methods that you have used to increase student responding within the educational environment? Are there some methods that are not listed that you feel would be useful in creating a culturally responsive environment in the classroom setting?

Section 3 Key Words

Critical consciousness - emphasis in engagement among students so that they are able to learn to think in a critical manner while relationships with colleagues and educators are developed

Cultural competence - system of behaviors, beliefs, and policies that allow others to work effectively with individuals from diverse backgrounds such as generation, race, culture, ability, and socio-economic status

<u>Culturally relevant education</u> - conceptual framework that recognizes the importance of a learner's cultural background, age, socio-economic status, ability, language, interests, and lived-in experiences help to prepare a student for learning within a student-centered educational environment that helps to develop critical thinking and one's ability to connect with other individuals in the learning environment

<u>Interteaching</u> - allows students to be provided with a preparation guide, prior to their class session, that outlines questions developed to guide the student through the reading assignment

<u>Response cards</u> - signs that students are able to hold up at the same time to reveal their response to an educator delivered question

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