8-2019

A Framework for Analyzing Cultural Considerations in Working with Young Clients Diagnosed with Autism Spectrum Disorder

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A Framework for Analyzing Cultural Considerations in Working with Young Clients

Diagnosed with Autism Spectrum Disorder

by

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A Thesis

Submitted to the Graduate Faculty of

St. Cloud State University

in Partial Fulfillment of the Requirements

for the Degree of

Master of Science

in Applied Behavior Analysis

August, 2019

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Abstract

Culture consists of beliefs, laws, customs, and manners that society deems to be socially appropriate. As culture influences how the individual behaves within society, it is important to recognize if and how cultural elements might influence the acceptance of behavioral treatments. The purpose of this literature review was to analyze culture with respect to the two most common reinforcers used in applied behavior analysis (ABA) research, edibles and praise. There were two components to this evaluation: a) an in-depth search of five country's use of edibles and praise and b) a review of a scholarly behavior analytic journal. The in-depth analysis results indicated that the use of edibles and praise varied with each country. The article review results indicated that out of 73 articles meeting inclusion criteria, five provided a cultural description and of those one applied a modification based on the participants' cultural needs.

Acknowledgements

To my grandparents, without you, I would have not been able to overcome my obstacles and achieve my goals. To my husband who never let me give up and always stood by my side. Your love and support make me a better person. Thank you for showing me how amazing this world can be. To my family, life would be so dull without you. I am forever grateful for your love, words of encouragement, and support. For all of this and more, thank you. I hope I made you all proud.

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Chapter 1: Introduction

Behavior analysis consists of three intertwined branches; the theoretical and philosophical (e.g., radical behaviorism, interbehaviorism) branch, the experimental analysis of behavior branch, and the applied branch (i.e., applied behavior analysis [ABA]; see Frost & Bondy, 2006; Pierce & Cheney, 2013; Steege, Mace, Perry, & Longenecker, 2007). ABA reciprocally informs the other branches and thus shares the same philosophical and epistemological underpinnings, such as a focus in pragmatism (Baum, 2017) and in considering its subject matter to be the point of interaction between the organism and their environment, including their learning history (Bijou, Peterson, & Ault, 1968).

The applied behavior analyst applies behavioral principles to improve an organism's (typically a human client) quality of life (e.g**.,** Baer, Wolf, & Risley, 1968). The goal, then, is one of habilitation, in which reinforcement is maximized and punishment is minimized over long and short terms (Hawkins, 1991). As habilitation is unique for each client, individualization of treatment and treatment goals are necessary. In discussing habilitation, I will focus on one particular factor as it relates to treatment outcome: culture. As the majority of the clientele of the applied behavior analyst are children diagnosed with autism spectrum disorder (ASD), these clients will be the primary focus of this current paper. Prior to discussing issues of culture in ASD treatment, I will discuss ASD and its treatment and the behavioral view of culture.

Autism Spectrum Disorder and Applied Behavior Analysis

According to a recent Burning Glass (2015) report, 85% of employment opportunities in ABA require some knowledge of ASD. Because ASD is densely present in ABA, understanding which variables affect the treatment outcome and how ASD and ABA are perceived by clients is paramount. ASD is described as an intellectual disability that alters the way the individual

socializes and communicates and is present in as many as 1 in 59 children (Baio, et al., 2018). Some common characteristics that are associated with autism are behavioral excesses such as ritualistic behavioral patterns and hypersensitivity of the senses, and deficits such as language impairment (delayed talking) and lack of eye contact (Matson, Hattier, & Belva, 2012; Matson et al., 2012). These excess and deficits can create many disturbances across multiple environments, which can limit the events and locations ASD clients are able to participate.

Behavioral services can be applied in multiple settings (e.g., home, school, and clinic) being the most common based settings. This allows behavior analysts to work with individuals across multiple environments with the support of other individuals (e.g., parents, teachers, or caregivers) and can further achieve habilation. In order to select the behaviors, the interventionist will observe the client directly and supplement the observations by also interviewing parents and/or teachers to further assess the problem behaviors (Behavior Analyst Certification Board [BACB], 2014; Harris & Delmolino, 2002; Keenan et al., 2015). There can be some confounding variables with selection of behaviors to intervene, as one individual (e.g., teacher) might identify a behavior as problematic, however, another individual (e.g., parent) might not view that same behavior as problematic (Fong, Catagnus, Brodhead, Quigley, & Field, 2016). Therefore, there are several factors that should be noted when creating treatments and selecting reinforcers. The following section will provide a review of the social and environmental factors that can potentially affect habilation.

<center>**Environmental and Social Variables**</center>

Behavior analysts can identify functional relations between the behavior and environment, which can be used to decrease and replace problematic behavioral excesses and build and maintain new behaviors. Identifying which variables are functionally-related to the

treatment outcomes will vary with each client. Some environmental factors that are functionally-related to behavior change include distractions (e.g., does the behavior of the organism change when noise is present versus when it is not?), temperature (i.e., is behavior influenced by the temperature changes?), and geographical changes. For an example of the latter, consider that when a family migrates to a different environment, the transition can be stressful for one or more family members, which can influence how the family then interacts. Adjusting to new living situations, such as new climate, new language, new social customs, even a new diet, can cause the organism's behavior to change in the new environment in either a healthy or counterproductive manner (Hancock, 2005). Behavior can also be affected when the social standards in the new environment differ from what the individual has accustomed to.

The social variables consist of traditions and values such as manners, roles, beliefs (e.g., religion, superstitions, and healing traditions) and practices. For the individual, the social factor helps to determine the accepted 'norm' in their environment; in other words, other people will differentially reinforce particular behaviors. An example is the role and responsibilities a mother has within the family. For instance, in the Korean culture, when a child is diagnosed with ASD, the belief is that the mother has failed to fulfill her role as a mother and is being punished by having a disabled child (Ecker, 2010). A family with these beliefs might be less willing to accept any services for their child, and any services accepted might be kept private, thus limiting the opportunities to develop appropriate social skills with the client. Another example can be the rules for speaking. In some families, an individual cannot speak first to the elders in their family and will often remain silent until spoken to (Dilworth-Anderson, n.d.). Thus, if the intervention is targeted to increase the child's language skills (e.g., manding; see, Lamarre & Holland, 1985),

some targets or common procedures might be rejected because it can be perceived as speaking out of turn or teaching the child bad manners.

With every ASD client, it is important to recognize the importance of both the social and non-social variables and their impact on behavior, particularly when developing treatments that will generalize (across settings/people and time). These social variables are the rules, values, and essence of how the individual represents themselves with families, communities, and other individuals (Burley & Golding, n.d.; Dilworth-Anderson, n.d.). It is this culture[1] that has the ability to maintain (or not) the advances made during treatment. For this reason, it is important to consider and understand the cultures of the client.

Culture

Culture is defined by the behaviors that are accepted by a particular group and can be described as "a spirit or atmosphere or something with equally nonphysical dimensions" (Skinner, 1953, p. 419). Some of these dimensions could be religion, manners, and customs (Hancock, 2005; Siepel & Way, n.d.). Cultural elements can also be beliefs, laws, and morals that are followed by individuals to maintain connections, communication, and similarities within society (Kroeber & Kluckhon, 1952). Culture, then, is comprised of the practices that determine what is and what is not accepted within a community. For example, in some cultures, having a family member diagnosed with ASD can be considered abysmal (sometimes shameful) and thus the family will opt to hide the diagnosis from close relatives and their community and hence, may not seek treatment (Bauermeister, So, Jensen, Krispin, & El Din, 2006; Ecker, 2010).

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[1] Each individual is a member of multiple cultures

Additionally, there are physical dimensions that can further define culture, such as geography, features, and socioeconomic status (SES; [Kauffman, Conroy, Gardner, R., III, & Oswald 2008]). Consider that families of different SES might set different goals for their children. For instance, parents of low SES might consider that teaching manners (e.g., being polite [saying "please" and "thank you"], being respectful, and being compliant) is more important for their child to learn than academic skills as the manners represent their parenting skills (Bradley & Corwyn, 2005; Hoff, Laursen, & Tardif, 2002). When these disciplinary values are prioritized by families, and if the aim of the intervention is to develop math skills, the parents might view this as not worth their time and will not implement the treatment independently.

Table manners used for meals can be used to describe one's culture. For example, in the Chinese culture, the common table settings when having family meals is placing a bowl with food at the center of the table for everyone to share, with the exception of rice. The host will take each bowl and serve the rice, when the bowl is offered to the guest, it is of custom to take the bowl with both hands. Reaching for the bowl with one hand is considered disrespectful or being displeased with the meal. Thus, when teaching an ASD child table manners, behavior analysts should consider what skills are imperative for them to practice at mealtimes. Culture can also be described in the tools used to eat. As with Chinese culture, the norm is to eat from bowls and serve themselves with the same chopsticks the food is consumed with. Another individual with a different cultural background can view this as inappropriate table manners and/or unhygienic (see, e.g., Cooper, 1986).

Culture as an Influencer

As the individual is exposed to multiple environments, they are bound to identify with more than one culture. For instance, for a behavior analyst, the terminology typically used in the

ABA culture (e.g., extinction, punishment, reinforcement; what is sometimes called "behaviorese" [Critchfield, Becirevic, & Reed, 2017]) is a way they can connect and identify with the behavior-analytic culture. To individuals that are not familiar with ABA, our terminology is known as jargon (Critchfield et al., 2017; Lindsley, 1991). Outside the ABA culture, the behavior analysts can identify with a different set of vocabulary when interacting with family members such as using a different language (e.g., from English to Spanish) and can change once again when interacting with friends (e.g., formal to informal; see Burley & Golding, n.d.; Dilworth-Anderson, n.d.).

Some cultures share functionally-related, yet topographically distinct practices. For instance, consider that for the rituals and practices when a death occurs in the family, cultural traditions will differ (Brooten et al., 2016). In many religious cultures, when an individual is deceased, the traditional thing to do is to pray for their soul. In the Catholic culture, after the individual is buried, the family member will start a "novena" which is a nine day prayer that is done at the same time every day (EWTN, n.d.). In Chinese Buddhist culture, the funeral ceremony can last up to 49 days, during which prayer is done every 7 days (Lerch, 2014). Thus, in culture, topography matters, as the two practices are functionally equivalent but not interchangeable. As prayer is part of many individuals culture, many parents would like to have their children participate in such activities and thus prefer for the behavior analytic services to prioritize this skill.

Covert private events, as described by Skinner (1953), are another example of cultural differences wherein individuals across cultures might describe or report these stimuli differently. Private events are responses to stimuli that only the individual is able to report, and therefore, these events are known only by the description of the person experiencing it (Skinner, 1953). In

some cultures, when an individual's behavior is being influenced by a private event (e.g., pain), an individual might refrain themselves from expressing their pain because it is not in their cultural norm. The individual's gender or sex is often used as a base when teaching them appropriate expressions of pain. Thus, a male that has been raised in a Mexican culture has been taught the structures of machismo (e.g., strong character, provider, protector; see Alvarado, 2008; Hancock, 2005; Seipel & Way, n.d.). According to this culture, expressing that one is in pain is not a masculine practice as it contradicts the structures of machismo.

Geography can also be used to delineate cultural practices. Boundaries of personal space for an individual varies on the location of the culture in which they grew up (Gharaei & Rafieian, 2012; Nishihara & Okubo, 2015). Sometimes these differences can cause conflict when one cultural norm is introduced to another culture. For Latinos, personal space is less of an area of concern. In other words, concerns about invading personal space is not a common issue that arises when in public. When standing in line, a person can stand very close to the person in front (almost to the point of touching) and cause no disturbance. For Latinos, it is the norm to stand close to another individual. If one would apply this norm to western culture, it could be received negatively (i.e., inappropriate, invading personal space; Seipel & Way, n.d.). If services are done in home a setting by an interventionist of western culture in a Latino home, the boundaries of personal space might be misinterpreted.

It is important to consider what treatments will be appropriate and fit within the client's cultural characteristics. If the intervention overlooks a cultural element that is important to the client, the treatment might be rejected. For instance, the function of eye contact. As previously stated, lack of eye contact is a common characteristic of ASD and is often a target behavior when intervening (Hwang & Hughes, 2000; O'Handley, Radley, & Whipple, 2015). In the western

culture, when communicating with others (i.e., engaging in the speaker and listener role), making eye contact is considered as polite and respectful and is hence, why many westerners continue to practice this cultural practice. However, in the Korean culture, people are taught since childhood to not make eye contact with elders, as it can be considered inappropriate and disrespectful (Choi, Kim, Drankus, & Kim, 2013; Gao, 2006). Thus, teaching a child of Korean culture to increase eye contact when speaking to elders can create disturbances in their home.

Skinner (1953) explained that analyzing the social variables (e.g., culture) that controls the individual's behavior allows behavior analysts to better understand the function of the behavior. Skinner also describes culture as being the rule, norm, and standard an individual uses as guidance for their behavior in public and within their family. Behaviorally speaking, cultural variables select behavior. Thus, culture is an important element as it can impact treatment acceptability, social validity, and treatment outcome as this can vary with each culture (Bernstein, 1989; Brown, Michaels, Oliva, & Woolf, 2008; Njardvik & Kelly, 2008; Schwartz & Baer, 1991). There are different studies that propose that different cultural backgrounds will consume treatment differently. The evidence suggests that culture also serves as an influencer on treatments (Barrera Jr, Castro, Strycker, & Toobert, 2012; Furman et al.,2009; Weber, 2004).

It stands to reason that an individual's culture can play a role in their acceptance of ABA treatments. However, to date no guides exist that aide the behavior analyst in identifying what variables to investigate and how to investigate them. To shed light on the paucity of cultural considerations in ABA, I will turn to the ABA literature and focus on one important aspect of ASD treatment as it relates to starting with new clients (arguably when cultural considerations should be addressed) reinforcement. The purpose of this literature review is to further analyze

culture with respect to the two most common reinforcers used by behavior analysts when starting

with new clients, namely edibles and praise.

Chapter 2: ABA: A Globalized Discipline

A Board Certified Behavior Analyst (BCBA) obtains certification from the BACB and thus certifies that individual to practice and provide behavior analytic services internationally. Because of this, many behavior analysts will come in contact with clients with different cultural backgrounds. As stated in the BACB, their global mission is to "protect consumers of behavior analysis services worldwide by systematically establishing, promoting, and disseminating professional standards" and their global vision is to "solve a wider variety of socially significant problems by increasing the availability of qualified behavior analysts around the world" (BACB, 2019). The Association for Behavior Analysis International (ABAI) is an organization that provides many resources for behavior analysts to continuously enhance their education and practices. This is an international source that is open to all behavior analysts around the world (ABAinternational, 2019). In other words, behavioral analytic practices are designed to be practiced globally, hence, behavior analysts are bound to encounter individuals who identify with more than one culture.

Chapter 3: General Method

The following is an outline of how the literature review will be completed. Prior to presenting the search process and the inclusion criteria, the researcher will provide a description of the two most commonly used reinforcers (i.e., edibles and praise) in ABA.

Reinforcers (Edibles and Praise)

One of the first steps a behavior analyst takes before implementing a treatment is to establish reinforcers. There are two types of reinforcers used to increase behavior: negative reinforcement (i.e., removing a stimulus) and positive reinforcement (i.e., presenting a stimulus; Skinner, 1953, p.73), positive reinforcers being the most commonly used for behavioral interventions. Once the preferred stimuli are identified, the targeted behaviors can be more easily achieved (Mason, McGee, Farmer-Dougan, & Risley, 1989; Pace, Ivancic, Edwards, Iwata, & Page, 1985). Exemplars of this include praise, free time, and play time which might include toys, electronics, or activities. Tangible items are most commonly used because they can be more discrete and easier to provide in multiple locations (Hughes, Hughes, & Dial, 1979; Rincover & Newson, 1985; Shevin, 1982). Praise is an additional reinforcer that is often used with ASD children. Like tangibles, praise can be easily provided in many settings to decrease problem behaviors (e.g., see, Carr, & Durand, 1985; Hernandez & Ikkanda, 2011). However, providing edibles or praise might interfere with the individual's cultural norms. The following section will provide a detailed description of different cultural interpretations of the use of edibles and praise.

Search Process. The literature review was conducted by using relevant search words on the online database Google.com search page. Because the results on Google are influenced by the individuals search history, the researcher searched for articles using an "in-private window". Although not all influences can be removed (e.g., the location where the researcher lives also

influences results) the use of "in-private window" limited these influences. The researcher

recorded each phrase that was used to conduct the analysis of the previously mentioned

countries. See Table 1 for the phrases, links, and date the search took place.

Depth Analysis of Cultures

To begin, the researcher constructed an in-depth analysis of five countries and assessed

how culture shapes the use of praise and edibles. The countries were selected from the "World

Population and the Top Ten Countries with the Highest Population" (Internet World Stats, 2019)

and the "Cultural Influence" (US News, 2019). The countries selected were: United States,

France, China, Mexico, and India. Each country has a separate description of their use (or lack

of) of edibles and praise.

Search Process. All the articles that were selected to be part of the literature review were

published in the main behavioral scholarly journal: *Journal of Applied Behavior Analysis*

(JABA). The researcher downloaded all articles from the last five years directly from JABA (i.e.,

onlinelibrary.wiley.com) between 2014 through 2018. Announcements, editor notes, and issue

information were excluded.

Scholarly Journal Search

Inclusion criteria. Following the depth analysis of culture, the researcher conducted a

review of studies to search for any mention of culture. To be included in the literature review, the

inclusion criteria consisted of the following: (a) at least one participant in the study must be

diagnosed with autism, (b) the focus of the study must be on either increasing behavioral deficits

or decreasing behavioral excess with ASD (e.g., increasing social skills), and (c) the study must

use edibles or praise (or a combination of both) as a primary reinforcer. See Figure 1 for a

breakdown of inclusion criteria for scholarly articles.

The researcher conducted a quick search "CTRL + F" and searched for the following terms: "autism", "ASD", and "autism spectrum disorder" to identify that at least one participant has a diagnosis of autism. Any study that did not have at least one participant identified with any of the previously mentioned terms, was excluded from the study. If the study did meet criteria "a", the researcher proceeded to search for criteria "b", (i.e., is the study focusing on behavioral excesses or deficits?).

To find if the study focused on reducing behavioral excesses or increasing behavioral deficits, the researcher conducted a quick search "CTRL + F" and searched for "purpose" to identify what the focus of the study was. If the article did not use "purpose" to identify what the target of the intervention was, the researcher reviewed the final one to two paragraphs of the introduction section to identify the purpose. If the study did not focus on behavioral excess or deficits (e.g., the purpose of the study was to compare treatments), the study was excluded. If the article met criteria "a" and "b", the researcher proceeded to search for criteria "c".

To find the type of reinforcer used in the study, the researcher conducted a quick search "CTRL + F" and searched for the following terms: "reinforcement", "reinforcer", "praise", "edible", "food", and "preference assessment". Any of the previous terms that appeared outside of the methods section were not counted (e.g., the study talks about the use of praise in the discussion section of the paper). If the study met criteria "a", "b", and "c", the study was included in the literature review and advanced to the next step.

Search for cultural modifications. Once the articles passed the inclusion criteria, the researcher focused on looking for any discussions about culture and if any modifications were done based on those discussions. The researcher focused analyzing only the methods section of the study. The search for description of culture was done in two ways. First, the researcher

conducted a quick search "Ctrl + F" and searched the following terms: "culture", "ethnicity", "background", "primary language", and "native language" to identify if any of these commonly used terms were used in the study. Secondly, the researcher examined the methods section to analyze if the article included a cultural description without the previously mentioned terms (e.g., family requested to teach child in mandarin as it is commonly spoken at home).

If the article did include a cultural description (in either of the two forms), the information was assessed to determine what the description was used for (i.e., was it used to modify the intervention to fit the client's cultural views?). If the study did make any mention of culture, the mention and/or modification must be made for the participant(s) diagnosed with ASD in order to be included in the study. For example, documents translated for a participant that was diagnosed with self-injurious behavior (SIB).

Chapter 4: Results

The results indicate that between these five countries (i.e., Unites States, France, China, Mexico, and India) the use of praise and the use of edibles (i.e., eating patterns, meals, and snacks) vary with each culture. The results suggest that clients of different cultural backgrounds might welcome or reject praise and edible reinforcers differently. Following is a description of the individualities of each country the researcher was able to identify about praise and edibles.

Depth Analysis of Cultures

    Praise.

    United States. In the United States, the use of praise is well received within homes and communities. It is especially accepted and encouraged to be used with children. Parents are often encouraged to use praise with their child as often as possible (Barish, 2013). Teachers are also encouraged to incorporate praise in the classroom (see, Wright, 2012). Praise is so densely present in the U.S. that two different categories of praise have been identified: personal praise and effort-based praise. Personal praise can be described as spotlighting the individual's qualities, for example, a parent praising their child for their coloring skills. As the name suggests, effort-based praise focuses on praising the individual for the effort given to behavior. For example, a child is praised for attempting to tie their shoelace. Between personal and effort-based praise; effort-based praise is preferred as it is praises the work the individual does to complete the task, which then encourages the individual to further improve their skills (Glasser, 2013; & Morin, n.d.).

    France. In the French culture, praising children's behavior is not a common technique that is used for raising children. Many parents minimize the use of praise because it is believed that using praise too often will devalue praise (i.e., not reinforcing for the child's behavior) and

children will stop working toward earning parent's approval (Anderson, n.d.; Goddard, n.d.a).

For example, when children communicate with others, children are not praised by parents when

the child says "water". Instead, parents encourage their child to achieve proper communication

skills, such as saying "may I have some water please?". Another example is that children are

expected to be polite when communicating with others, most importantly with adults. When

children say "please", "thank you", "hello" and "goodbye", children are not praised by parents

(or other adults). Instead, children are corrected and reminded of their manners when the child

does not use these words. Therefore, if a child does not say "hello" to a guest that has arrived, the

adult will remind the child that they must greet and acknowledge their guest by saying "hello"

(Hendricks, 2018).

   China. In the Chinese culture, praise is not commonly used by parents with children. For

many parents, it is believed that praising will diminish the humility of the child. As praise seems

to result in negative outcome on children, parents most commonly use punishment to encourage

children to succeed and bring respect to the family. For example, to assure that a child will excel

in school, a parent compares the child's behavior with another child. Parents might also shame

the child when the behavior does not meet the parent's expectations (e.g., receiving a low grade

in class). Within the Chinese culture, the way the child behaves in society will either bring honor

or shame to the family. Thus, it can be a reason why parents choose to compare their child's

success with other children and shame the child when a "problem behavior" occurs (Cheah,

Leung, & Zhou, 2013; Chengliang, 2011; Mei, 2018.; & Paiva, 2008). Nevertheless, younger

generations are incorporating different parenting techniques that do not involve punishment.

   Although punishing the child's behavior is the common norm in the Chinese culture,

younger generations are recognizing the negative consequences of using punishment and they are

starting to acknowledge that positive reinforcement (e.g., praise) can also be beneficial to children. However, when praise is used, it is done strategically and carefully. For example, parents will often praise the strategy, specificity, and effort the child does when completing a puzzle. Thus, a parent will say "You used a good method to solve the puzzle faster" instead of "You did an awesome job! You are so smart" (Chinese4kids, n.d.; Jenkins, n.d.).

Mexico. In the Mexican culture, the parenting techniques often use a combination of praise and punishment. Gender plays an important role as it determines what is expected of children and how parenting will be conducted. For example, one way gender plays a role in parenting is that mothers are often stay at home parents. They feed, clothe, and teach children about the importance of family, religion, and being respectful to others. Mothers take on the role of being the nurturing parent, thus they often praise the child's good behavior. However, to eliminate the child's problem behavior, it is the father's responsibility to use some form of punishment (e.g., spanking, shaming, and warning) to remind children that parents are the authority and should be respected (Chang & Liou, 2009). Children who have good manners and are respectful to elders is of high importance in the Mexican culture because it reflects the effectiveness of parenting. When children do follow the norm, they are praised not only by their parents but by other adults (i.e., grandparents, aunts, uncles, and neighbors; see aevans18.wordpress, 2010; Garcia, n.d.; Sardi, 2012).

India. In the Indian culture, one of the first things that parents teach their child is to learn to be respectful to elders within their families and community. This is done so by reminding children to be careful of their actions as any behavior that is done in public represents the family. Parenting is not exclusively done by the mother and the father; grandparents often play a major role in raising children. Parents support their child in academics, whichever course or interest

that child is encouraged to pursue what they are interested in. Children are often provided with an abundant amount of attention. Meaning that children often heavily depend on their parents and remain at home until adulthood. However, it is unclear if parents use praise as a form of reinforcement to encourage children to do well in school or when children are being respectful to adults (Vaid, 2012; Bari, n.d.; World Moms Networks, 2011; & Kedro, n.d.)

Edibles.

United States. In the 1980s, eating patterns in the western culture consisted of having three meals a day: breakfast, lunch, and dinner. Meals were being eaten at the dining table with family or friends. Since then, the westerner's eating habits have changed. For example, an individual eating alone in a restaurant was not considered an appropriate situation. Nowadays, people often consume meals quickly and in multiple settings (e.g., desk, couch, and walking while eating; see, Ferdman, 2015). Snacking (i.e., eating between meals) has become a big part of the eating habits in the United States. Snacks are most typically items that are easy to travel with (e.g., chips, candy bars, and apples) and comfy to consume in multiple settings. It has been suggested that snacks are often used as a substitute for meals. Therefore, eating "on the go" or eating in an atypical setting (e.g. public transportations or desk at work) is an acceptable way of consuming one's meal (Horovitz, 2014; Melnick, 2011; & Weisenberger, 2015).

France. In the French culture, the norm is to have three meals a day: breakfast, lunch, and dinner and all meals should be eaten together at a table. Eating in public places such as public transportations, on the couch, or even eating alone (at home or in public) is not considered the social norm. For many individuals, meals (more specifically lunch and dinner) are considered to be ritualistic practices, meaning that they should be done with others because it is an opportunity to engage in social interaction. Because meals are social events, eating between

meals (i.e., snacking) is not a common practice. Many individuals believe that when consuming

food, they should be in a state of deprivation so that they are able to further enjoy their food

(Fantasia, 1995; Luomala, Siriex, & Tahir, 2009; Johnson, 2014). Children are no exception.

Snacks are limited to one (no sweets or processed foods) and sometimes no snack is provided as

parents believe that it is okay that their child feels hungry (Hendricks, 2018; Ward, 2018).

Children are also expected to eat the same food as adults. For instance, parents do not make a

separate menu for a child who does not like vegetables. At a very young age, children are

exposed to a variety of food to prevent them from becoming "picky eaters" (Bibard, 2014,

Hendricks, 2018; & Plantier, 2015). Additionally, parents do not use food as a reinforcer with

children as many believe that using food as a form of punishment or reward might develop an

unhealthy relationship with food (Hendricks, 2018).

China. In the Chinese culture, the food pattern consists of having three meals a day:

breakfast, lunch, and dinner. Additionally, snacks are incorporated throughout the day. Snacking

is a common practice in the Chinese culture, in which sweet foods (i.e., desserts) are most

commonly consumed when snacking instead of being eaten after lunch or dinner. Since snacks

are eaten at multiple times of the day, street vendors are very popular and easy to find (Huang,

2012; & Zhang, 2011. During mealtimes, all family members are gathered around the table

where everyone eats from the dishes placed on the table (see, Cooper, 1986; & China Discovery,

n.d.). The preparation, gathering around the table, and consumption of food can be of social

significance to the Chinese culture, as certain foods can have specific meanings. For instance,

oranges and chestnuts signify good luck and can be presented to others to consume, while pears

can be an emblem of bad luck. Since food is a valuable aspect of the Chinese culture, parents

often use food as a reward (i.e., reinforcing good behavior) or a punishment for bad behavior (Ma, 2015; Wertz, n.d.).

Mexico. In the Mexican culture, the norm is to have four meals a day: light breakfast, regular breakfast, lunch, and dinner. Snacks are also incorporated throughout the day. Lunch is most commonly eaten around 2:00-4:00 pm and is often the biggest meal of the day. Because it is the biggest meal, it is very common for shops (e.g., retail shops) to close for people to go home and have lunch with family members. Snacks are commonly known as "antojitos" which translates to cravings, which is what many individuals often eat as their snack. Thus, there appears to be minimal restrictions on what an individual (i.e., adult or child) can have as a snack (e.g., sweets, fruits or junk food). Eating between meals is a common practice in the Mexican culture. Children are often provided with many opportunities to eat snacks. For example, at the end of the school day, there are some street vendors present outside the schools so that children can purchase snacks (Barbezat, 2019; Dishman, 2004; & Goddard, n.d.b).

India. In the Indian culture, individuals usually have three meals a day: morning meal, midday meal and evening meal. Meals are often consumed around the table with family members, the evening meal being most typically the biggest meal. To make sure the entire family is present during meals, mealtimes are scheduled based on the availabilies of each member. Snacking between meals is also the common norm that many individuals practice. There is typically no restriction as to what an individual might choose to snack on (besides dietary restrictions). When being in public, a common norm for strangers to engage in conversation is to offers snacks. This behavior allows for the opportunity to socialize with others (Fuller, 2018; Ramadurai, 2016; & Times of India, 2014).

Scholarly Journal Search

The researcher reviewed a total of 386 articles from JABA between the years 2014

through 2018. In volume 47 (2014), issues 1-4, 16 articles met the criteria; volume 48 (2015),

issues 1-4, 9 met the criteria; volume 49 (2016), issues 1-4, 18 met the criteria; volume 50

(2017), issues 1-4, 15 met the criteria, and volume 51 (2018), issues 1-4, 15 met the criteria.

Thus, a total of 73 articles were included in the literature review. See Table 2 for articles

reviewed and included.

The results indicated that the studies conducted in the last five years had limited

information about the participant's culture. Out of 73 articles that were reviewed, five articles

included a cultural description of the ASD client(s). From this information, only one article noted

making any modification to fit the participant's cultural needs. The researchers made a cultural

modification but did not include any cultural description.

In their study, Silva and Debert (2017) focused on teaching conditional and emergent

relations. The reinforcer used in the study was praise. Although there was no cultural description

of the participants within the study, the researchers noted that a modification was made to fit the

participant's primary language. The researchers used a Portuguese translated version (originally

developed in English) of the assessment tool.

For the remaining four articles, although there was a cultural component described in the

study, there was no description of making any modifications to the intervention to fit the

participants' cultural practices (e.g., translation of documents or adjusting to fit cultural practices

at home). Each of these four studies is briefly described.

Gevarter, et al. (2016) increased vocalization while using a speech-generating device.

The reinforcers used in the study were preferred items which also included food and drinks. The

cultural element that was described in the study was the participants' ethnicity (i.e., African-American and Mexica-American). The study also described that two of the participants additionally spoke Spanish at home primarily with their mothers. The intervention was ultimately done in English. There was no mention if the decision of having the intervention in English was done because of parent/caregiver preference.

Brodhead, Higbee, Pollard, Akers, & Gerencser (2014) taught ASD children to play hide and seek. The reinforcers used in the study were edibles and praise. The cultural element that was described was the participants' ethnicity (i.e., Caucasian). The researchers confirmed that all participants came from a Caucasian household, and that all participants spoke English at home. Thus, confirming that no language modifications were needed.

Dixon, Peach, Daar, & Penrod (2017) investigated teaching complex verbal operants. The reinforcers used in the study were edibles and praise. The cultural element that was described in the study was the participants' ethnicity (i.e., Caucasian and Hispanic). No mention of making modifications to the intervention to fit client's cultural needs appeared in the text.

Finally, Grosberg and Charlop (2017) taught conversational skills. The reinforcer used in the study was praise. The cultural element that was described in the study was the participants' ethnicity (i.e., Asian, Hispanic, Caucasian, and Indian). No mention of making modifications to the intervention to fit client's cultural needs appeared in the text (see also Table 3).

Chapter 5: Discussion

The current study analyzed how five countries use praise and edible reinforcements in their culture; more specifically, how parents use these reinforcers with children. Across the five countries, there were some similarities and differences about the use of praise and edibles. Parents have different norms, practices, and values they follow when raising children. Positive reinforcement might be used with children as some parents may prefer to praise the child's good behavior and reject the use of negative reinforcement or punishment (positive or negative) procedures. On the contrary, some parents rebuff the use of praise or edible reinforcers as it can be seen as encouraging problem behaviors. However, the results of in-depth analysis should be taken cautiously.

The analysis demonstrated a general description of the use reinforcers (i.e., praise and edibles) with children by parents in multiple countries. However, it is not suggested that what is mentioned in the study is what every individual with these cultural backgrounds do. Many individuals and families might be exposed to multiples cultures and each might use reinforcers differently with children. Additionally, behavior analysts should not generalize these practices or norms to all individuals of the same country. Stereotyping might result in further rejection of the services a behavioral analyst might provide. Future researchers should assess effective methods to acknowledge these cultural influences and how the use of reinforcers might be accepted or rejected.

Although the present study focused on five countries and their use of praise and edibles, the researcher could not provide a clear description on all five countries about how parents might apply these two reinforcers with children. This might suggest that for some, how edibles and praise are used is not of great importance. Even so, for the countries where clear information was

provided, some parents might not be troubled by behavioral analysts using praise or edibles during an intervention. For instance, a parent of French culture might approve the use of edibles in a behavioral intervention. Another reason as to why a thorough description was not provided on all five countries is that the methods used by the researcher might not have been precise enough and thus could not identify exactly how praise or edibles are used. Future researcher should assess whether alternative methods could provide further information of countries.

The current study only focused on a major behavioral journal (i.e. JABA). Therefore, this study was not able to identify if other studies published in other scholarly journals (i.e., Behavior Analysis Research in Practice and Behavior Analysis in Practice). Future researchers should further analyze studies that are published in the previously mentioned journals. Furthermore, the current study limited the search to only studies that had ASD participants. Other studies could have acknowledged the participants cultural practice of individuals not diagnosed with ASD. Future researchers can analyze and include additional studies that do not have ASD individuals in their study.

Determining if current behavior analysts have had any exposure or training on how to acknowledge culture has been previously assessed. Beaulieu, Addington, & Almeida (2018) surveyed current BCBAs and BCBA-Ds. Their results determined that many BCBAs consider that cultural training is imperative, however; many had not received any training on culture. The results suggest that the culture the individual is exposed to can influence the approval of behavioral interventions. That is, if the treatment interferes with any cultural practices that are held valuable to the individual, the behavioral services might be terminated. To date, there is limited discussion on developing assessments or trainings for behavior analysts to use to identify

when culture might influence treatment. Culture should be further assessed to determine if this factor should be further incorporated and acknowledged when developing interventions.

References

Alvarado, A.J. (2008). Cultural diversity: Pain beliefs and treatment among Mexican-Americans,

    African-Americans, Chinese-Americans, and Japanese-American (Master's thesis).

    Retrieved from

    https://commons.emich.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1126&context=honors

Anderson, C.H., (n.d.) 11 surprising reasons French children are so well-behaved. *Reader's*

    Digest. Retrieved from https://www.rd.com/advice/parenting/french-parenting/

Association for Behavior Analysis International. (2019). *About.* Retrieved from

    https://www.abainternational.org/about-us.aspx

Baer, D.M., Wolf, M.M., & Risley, T.R. (1968). Some current dimensions of applied behavior

    analysis. *Journal of Applied Behavior Analysis, 1*(1), 91-97.

Baio, J., Wiggins, L., Christensen, D.L., Maenner, M.J., Daniels, J., Warren, Z.,… Dowling, N.F.

    (2018). Prevalence of autism spectrum disorder among children aged 8 years – autism

    and developmental disabilities monitoring network, 11 sites, United States, 2014.

    Surveillance Summaries, 67(6), 1-23.

Barbezat, S. (2019). Meals and mealtimes in Mexico. *Tripsavvy.* Retrieved from

    https://www.tripsavvy.com/meals-and-mealtimes-in-mexico-1588864

Bari, N. (n.d.). 10 differences between raising a child in India and the US. [Web log post].

    Retrieved from https://www.theindusparent.com/different-parenting-styles-in-us-and-india

Barish, K. (2013). Should parents praise their children? *Psychology Today.* Retrieved from

https://www.psychologytoday.com/us/blog/pride-and-joy/201309/should-parents-praise-

their-children

Barrera, Jr., M., Castro, F.G., Stycker, L.A., & Toobert, D.J. (2012). Cultural adaptations of

behavioral health interventions: A progress report. *Journal of Counseling and Clinical

Psychology, 81*(2), 1-10.doi: 10.1037/a0027085

Bauermeister, J.J., So, C.Y.C., Jensen, P.S., Krispin, O., & El Din, A.S. (2006). Development of

adaptable and flexible treatment manuals for externalizing and internalizing disorders in

children and adolescents. *Revista Brasileira de Psiquiatria, 28*(1), 67-71.

Baum, W.M. (2017). Understanding behaviorism behavior, culture, and evolution: Third Edition.

Hoboken: Wiley.

Beaulieu, L., Addington, J., & Almeida, D. (2018). Behavior analysts' training and practices

regarding cultural diversity: the case for culturally competent care. *Behavior Analysis in

Practice,* doi.org/10.1007/s40617-018-00313-6

Behavior Analyst Certification Board. (2014). *Applied Behavior Analysis Treatment of Autism

Spectrum Disorder: Practice Guidelines for Healthcare Funders and Managers.*

Retrieved from https://www.bacb.com/wp-

content/uploads/2017/09/ABA_Guidelines_for_ASD.pdf

Behavior Analyst Certification Board. (2019). *About the BACB*. Retrieved from

https://www.bacb.com/about/

Bernstein, G.S. (1989). Social validity and the report of the ABA task force on right to effective

treatment. *The Behavior Analyst, 12*(1), 97.

Bibard, F. (2014). French parenting: The secret behind well-behaved kids in France. *Talk in French.* Retrieved from https://www.talkinfrench.com/french-parenting/

Bijou, S.W., Peterson, R.F., Ault, M.H. (1968). A method to integrate descriptive and experimental field studies at the level of data and empirical concepts. *Journal of Applied Behavior Analysis, 1*(2), 175-191.

Bradley, R.H., & Corwyn, R.F. (2005). Caring for children around the world: A view from HOME. *International Journal of Behavioral development, 29*(6), 468-478. doi:10.1080/01650250500146925

Brodhead, M.T., Higbee, T.S., Pollard, J.S., Akers, J.S., & Gerencser, K.R. (2014). The use of linked activity schedules to teach children with autism to play hide-and-seek. *Journal of Applied Behavior Analysis, 47*(3), 645-650.

Brooten, D., Youngblut, J.M., Charles, D., Roche, R., Hidalgo, I., & Malkawi, F. (2016). Death rituals reported by white, black, and Hispanic parents following ICU death of an infant of child. *Journal of Pediatric Nursing, 31*(2), 132-140. doi:10.1016/j.pedn.2015.10.017

Brown, F., Michaels, C.A., Oliva, C.M., & Woolf, S.B. (2008). Personal paradigm shifts among ABA and PBS experts' comparisons in treatment acceptability. *Journal of Positive Behavior Interventions, 10*(4), 212-227.

Burley, N., & Golding, J. (n.d.). *Cultural diversity* [PowerPoint slides]. Retrieved from https://www.govst.edu/uploadedFiles/Academics/Colleges_and_Programs/CHHS/Departments/Addictions_Studies_and_Behavioral_Health/Cultural%20Diversity_recovery%20coach_redone.pdf

Burning Glass. (2015). US behavior Analyst Workforce: Understanding the National Demand

for Behavior Analysts. Retrieved from https://www.bacb.com/wp

content/uploads/2017/09/151009-burning-glass-report.pdf

Carr, E.G., & Durand, M. (1985). Reducing behavior problems through functional

communication training. *Journal of Applied Behavior Analysis, 18*(2), 111-126.

Chang, N.Y. & Liou, T.Y. (2009). A study of Latino parenting culture and the practices:

Listening to the voices of Latino parents. *Journal of Humanities and Social Sciences, 12,*

1-36.

Cheah, C.S.L., Leung, C.Y.Y., & Zhou, N. (2013). Understanding "tiger parenting" through the

perceptions of Chinese immigrant mothers: Can Chinese and U.S. parenting coexist?

Chengliang, Z. (2011). American and Chinese parenting styles. *China Daily.* Retrieved from

https://international.uiowa.edu/news/american-and-chinese-parenting-styles

China Discovery. (n.d.). Chinese food culture. [Web log post]. Retrieved from

https://www.chinadiscovery.com/chinese-food/food-culture.html

Chinese4kids. (n.d.) Re: How to praise a child and some phrases in Chinese [Web log post].

Retrieved from https://chinese4kids.net/how-to-praise-a-child-and-some-praise-phrases-

in-chinese/

Choi, Y., Kim, Y.S., Drankus, D., & Kim, H.J. (2013). Preservation and modification of culture

in family socialization: Development of parenting measures for Korean immigrant

families. *Asian American Journal of Psychology, 4*(2), 143-154. doi:10.1037/a0028772

Cooper, E. (1986). Chinese table manner: You are what you eat. *Human Organization, 45*(2),

179-184.

Critchfield, T.S., Becirivec, A., & Reed, D.D. (2017). On the social validity a behavior analytic communication: a call for research and description of one method. *Analysis of Verbal Behavior, 33*(1), 1-23. doi: 10.1007/s40616-017-0083-9

Critchfield, T.S., Doepke, K.J., Epting, L.K., Becirevic, A., Reed, D.D., Fiennup, D.M., Kremsreiter, J.L., & Ecott, C.L. (2017). Normative emotional responses to behavior analysis jargon or how not to use words to win friends and influence people. *Behavior Analysis in Practice, 10,* 97-106.

Dilworth-Anderson, P. (n.d.). *Cultural influences and acceptance of new ideas and interventions* [PowerPoint slides]. Retrieved from www.nationalacademies.org/hmd/~/media/5F17E0B538FB42959422FEB9AC8DF2FB.ashx

Dishman, P. (2004). Mexican Eating Habits. *RUF in Mexico.* Retrieved from http://www.rufmexico.org/?p=155

Dixon, M.R., Peach, J., Daar, J.H., & Penrod, C. (2017). Teaching complex verbal operants to children with autism and establishing generalization using the peak curriculum. *Journal of Applied Behavior Analysis, 50*(2), 317-331.

Ecker, J. (2010). *Cultural belief systems in autism and the effects of families* (Master's Thesis). Retrieved from https://academiccommons.columbia.edu/doi/10.7916/D84T6RD9/download

EWTN Global Catholic Network. (n.d.). Devotions [description of forum]. Retrieved from https://www.ewtn.com/devotionals/prayers/novena.htm

Fantasia, R. (1995). Fast food in France. *Theory and Society, 24*(2), 201-243.

Ferdman, R.A. (2015). The most American thing there is: eating alone. *The Washington Post.*

Retrieved from https://www.washingtonpost.com/news/wonk/wp/2015/08/18/eating-

alone-is-a-fact-of-modern-american-life/?noredirect=on&utm_term=.ecbcfbb69633

Fong, E.H., Catagnus, R.M., Brodhead, M.T., Quigley, S., & Field, S. (2016). Developing the

cultural awareness skills of behavior analysis. *Behavior Analysis in Practice, 9*, 84-94.

doi:10.1007/s40617-016-0111-6

Frost, L., & Bondy, A. (2006). A common language: using B.F. Skinner's verbal behavior for

assessment and treatment of communication disabilities is SLP-ABA. *The Journal of

Speech and Language Pathology, 1*(2), 103-109.

Fuller, K. (2018). Eating habits in the Indian culture. *Classroom.* Retrieved from

https://classroom.synonym.com/eating-habits-in-the-indian-culture-12083298.html

Furman, R., Negi, N.J., Iwamoto, D.K., Rowan, D., Shukraft, A., & Gragg, J. (2009). Social

work practice with Latinos: Key issues for social workers. *Social Work, 54*(2), 167-174.

Gao, F. (2006). Language is culture – on intercultural communication. *Journal of Language and

Linguistics, 5*(1), 58-67.

Garcia, J.C. (n.d.). Mexican family culture. *Love to Know.* Retrieved from

https://family.lovetoknow.com/family-values/mexican-family-culture

Gevarter, C., O'Reilly, M.F., Kuhn, M., Mills, K., Ferguson, R., Watkins, L.,… Lancioni, G.E.

(2016). Increasing the vocalizations of individuals with autism during intervention with a

speech-generating device. *Journal of Applied Behavior Analysis, 49*(1), 17-33.

Gharaei, F.M.N., & Rafieian, M. (2012). Enhancing living quality: Cross-cultural differences in

personal space between Kurdish and northern women in Iran. *Procedia – Social and

Behavioral Sciences, 53*, 313-320.

Glasser, D. (2013). Children & praise: Why certain types of praise may backfire. *Psychology Today.* Retrieved from https://www.psychologytoday.com/us/blog/parenting-news-you-can-use/201302/children-praise-why-certain-types-praise-may-backfire

Goddard, J. (n.d.) 14 surprising things about parenting in France. A Cup of Jo. [Web log post]. Retrieved from https://cupofjo.com/2018/07/parenting-in-france-provence/

Goddard, J. (n.d.). 10 Surprising things about parenting in Mexico. A Cup of Jo. [Web log post] retrieved from https://cupofjo.com/2013/08/10-surprising-things-about-parenting-in-mexico/

Grosberg, D., & Charlop, M.H. (2017). Teaching conversational speech to children with autism spectrum disorder using text-message prompting. *Journal of Applied Behavior Analysis, 50*(4), 789-804.

Hancock, T.U. (2005). Cultural competence in the assessment of poor Mexican families in the rural southeastern United States. *Child Welfare, 84*(5), 689-711.

Harris, S.L., & Delmolino, L. (2002). Applied behavior analysis: Its application in the treatment of autism and related disorders in young children. *Infants and Young Children, 14*(3), 11-17.

Hawkins, R.P. (1991). Is social validity what we are interested in? Argument for a functional approach. *Journal of Applied Behavior Analysis, 24*(2), 205-213.

Hendricks, S. (2018). The 15 biggest differences between French and American parenting. *Insider.* Retrieved from https://www.insider.com/differences-french-and-american-parenting-2018-3

Hernandez, P., & Ikkanda, Z. (2011). Applied behavior analysis behavior management of children with autism spectrum disorders in dental environments. *Journal of American Dental Association, 142*(3), 281-287.

Hoff, E., Laursen, B., & Tardif, T. (2002). Socioeconomic status and parenting. In Bornstein, M.H. (Ed.), *Handbook of Parenting Volume 2 Biology and Ecology of Parenting* (pp. 231-252). New Jersey: Lawrence Erlbaum Associates, Publishers.

Horovitz, B. (2014). American snack differently that other nations. *USA Today.* Retrieved from https://www.usatoday.com/story/money/business/2014/09/29/snacking-consumer-eating-habits-nielsen/16263375/

Huang, S. (2012). Chinese eating culture – street vendors of food. Top China Travel. [Web log post]. Retrieved from https://www.topchinatravel.com/community/blog/chinese-eating-culture-street-vendors-of-food.htm

Hughes, H., Hughes, A., & Dial, H. (1979). Home-based treatment of thumbsucking omission training with edible reinforcers and a behavioral seal. *Behavior Modification, 3*(2), 179-186.

Hwang, B., & Hughes, C. (2000). The effects of social interactive training on early social communicative skills of children with autism. *Journal of Autism and Developmental Disorders, 30*(4), 331-343.

Internet World Stats. (2019, April 8). *The World Population and the Top Ten Countries with the Highest Population.* Retrieved from https://www.internetworldstats.com/stats8.htm

Jenkins, A. (n.d.) Chinese culture & parenting. *Livestrong.* Retrieved from https://www.livestrong.com/article/239128-chinese-culture-parenting/

Johnson, M. (2014). What do French people eat: 3 meals, infinite options. *Udemy.* Retrieved

    from https://blog.udemy.com/what-do-french-people-eat/

Kauffman, J.M., Conroy, M., Gardner, R., III, & Oswald, D. (2008). Cultural sensitivity in the

    application of behavior principles to education. *Education and Treatment of Children,*

    31(2), 239-262.

Kedro. (n.d.). Parenting in the Indian culture. *Livestrong.* Retrieved from

    https://www.livestrong.com/article/1007669-parenting-indian-culture/

Keenan, M., Dillenburger, K., Rottegers, H.R., Dounavi, K., Jonsdottir, S.L., Moderato, P…

    Martin, N. (2015). Autism and ABA: The gulf between North America and Europe.

    Journal of Autism and Developmental Disorders, 2, 167-183. doi:10.1007/s40489-014-

    0045-2

Kroeber, A.L., & Kluckhohn, C. (1952). *Culture a critical review of concepts and definitions*.

    London: Forgotten Books.

Lamarre, J., & Holland, J.G. (1985). The functional independence of mands and tacts. *Journal of*

    the Experimental Analysis of Behavior, 43(1), 5-19.

Leaf, J.B., Cihon, J.H., Alcalay, A., Mitchell, E., Townley-Cochran, D., Miller, K., … &

    McEachin, J. (2017). Instructive feedback embedded within group instruction for

    children diagnosed with autism spectrum disorder. *Journal of Applied Behavior Analysis,*

    50(2), 304-316.

Lerch, T. (2014, April 22). 49 day funeral ceremony [Web log post]. Retrieved from

    http://www.chinabuddhismencyclopedia.com/en/index.php?title=49_Day_Funeral_Cere

    mony

Lindsley, O.R. (1991). From technical jargon to plain English for application. *Journal of Applied Behavior Analysis, 24*(3), 449-458.

Luomala, H.T., Sirieix, L., & Tahir, R. (2009). Exploring emotional-eating patterns in different cultures: toward a conceptual framework model. *Journal of International Consumer Marketing, 21*, 231-245. doi:10.1080/08961530802202818

Ma, G. (2015). Food, eating, and culture in Chinese society. *Journal of Ethic Foods, 2(4), 195-199.* doi.org/10.1016/j.jef.2015.11.004

Mason, S.A., McGee, G.G., Farmer-Dougan, V., & Risley, T.R. (1989). A practical strategy for ongoing reinforcer assessment. *Journal of Applied Behavior Analysis, 22*(2), 171-179.

Matson, J.L., Hattier, M.A., & Belva, B. (2012). Treatment adaptive skills of persons with autism using applied behavior analysis: A review. *Research in Autism Spectrum Disorders, 6,* 271-276. doi:10.1016/j.rasd.2011.05.008

Matson, J.L., Turygin, N.C., Beighley, J., Rieske, R., Tureck, K., & Matson, M.L. (2012). Applied behavior analysis in autism spectrum disorders: Recent developments, strengths, and pitfalls. *Research in Autism Spectrum Disorders, 6*, 144-150. doi:10.1016/j.rasd.2011.03.014

Mei, Y. (2018). A Chinese mother raising her son in the US reveals the biggest differences between American and Chinese parenting. *Business Insider.* Retrieved from https://www.businessinsider.com/differences-chinese-and-american-parenting-2018-3

Melnick, M. (2011). Snack attack! Americans are eating more between meals. *Time USA.* Retrieved from http://healthland.time.com/2011/07/01/snack-attack-americans-are-eating-more-between-meals/

Morin, A. (n.d.). The power of praise. *Understood for Learning & Attention Issues.* Retrieved

    from https://www.understood.org/en/friends-feelings/empowering-your-

    child/celebrating-successes/ways-praise-can-empower-kids-learning-issues

Nishihara, R., & Okubo, M. (2015). A study on personal space in virtual space on personality.

    Procedia Manufacturing, 3, 2183-2190.

Njardvik, U., & Kelley, M.L. (2008). Cultural effects of the acceptability of behavioral

    interventions between Iceland and American parents. *Nordic Psychology, 60*(4), 283-294.

O'Handley, R.D., Radley, K.C., & Whipple, H.M. (2015). The relative effects of social stories

    and video modeling towards increasing eye contact of adolescents with autism spectrum

    disorder. *Research in Autism Spectrum Disorder, 11*, 101-111.

Pace, G.M., Ivancic, M.T., Edwards, G.L., Iwata, B.A., & Page, T.J. (1985). Assessment of

    stimulus preference and reinforcer value with profoundly retarded individuals. *Journal of

    Applied Behavior Analysis, 18*(3), 249-255.

Paiva, N.D. (2008). South Asian parents' constructions of praising their children. *Clinical Child

    Psychology and Psychiatry, 13*(2), 191-201.

Pierce, W.D., & Cheney, C.D. (2013). Applied behavior analysis. *Behavior Analysis and

    Learning: Fifth Edition* (399-437). New York: Psychology Press.

Plantier, R. (2015). 9 ways to parent like the French. *Matador Network.* Retrieved from

    https://matadornetwork.com/life/9-ways-parent-like-french/

Ramadurai, C. (2016). In India, a rich foo culture vanishes form the train tracks. *The Salt*.

    Retrieved from https://www.npr.org/sections/thesalt/2016/09/17/494258848/in-india-a-

    rich-food-culture-vanishes-from-the-train-tracks

Rincover, A., & Newson, C.D. (1985). The relative motivational properties of sensory and edible

reinforcers in teaching autistic children. *Journal of Applied Behavior Analysis, 18*(3),

237-248.

Sardi, K. (2012). Spanking: Where do Latino parents stand. *NCB Latino.* Retrieved from

http://nbclatino.com/2012/07/27/spanking-where-do-latino-parents-stand/

Schwartz, I.S., & Baer, D.M. (1991). Social validity assessments: Is current practice state of the

art? *Journal of Applied Behavior Analysis, 24*(2), 189-204.

Seipel, A., & Way, I. (n.d.) Culturally competent social work practice with Latino clients. *The

New Social Worker.* Retrieved from https://www.socialworker.com/feature-articles/ethics

articles/Culturally_Competent_Social_Work_Practice_With_Latino_Clients/

Shevin, M. (1982). The use of food and drink in classroom management programs for severely

handicapped children. *Journal of the Association for the Severely Handicapped, 7,* 40-46.

Silva, R.A., & Debert, P. (2017). Go/no-go procedure with compound stimuli with children with

autism. *Journal of Applied Behavior Analysis, 50*(4), 750-755

Skinner, B.F. (1953). Science and human behavior. New York: The Free Press.

Steege, M.W., Mace, C., Perry, L., & Longenecker, H. (2007). Applied behavior analysis:

Beyond discrete trial teaching. *Psychology in the Schools, 44*(1), 91-99.

Times of India. (2014). *67% of Indians choose snacks over meals*. Retrieved from

https://timesofindia.indiatimes.com/india/67-of-Indians-choose-snacks-over-

meals/articleshow/44872624.cms

U.S. News & World Report. *Cultural Influence.* Retrieved from

https://www.usnews.com/news/best-countries/influence-rankings

Uncategorized. (2010, May 1). Childhood development in the Hispanic culture. [Web log post].

Retrieved from https://aevans18.wordpress.com/

Vaid, P. (2012). Parenting in India: is it hindering for the growth of a child or more productive

when compared to the Western ways? #debate. Youth Ki Awaaz. [Web blog post].

Retrieved from https://www.youthkiawaaz.com/2012/10/parenting-in-india-is-it-

hindering-for-the-growth-of-a-child-or-more-productive-when-compared-to-the-western-

ways-debate/

Ward, K. (2018). 6 parenting styles from other countries we can all learn from. *Care.* Retrieved

from https://www.care.com/c/stories/4721/parenting-styles-around-the-world/

Weber, Z. (2004). Working towards culturally sensitive ethical practices in a multicultural

society. *Journal of Practice Teaching, 5*(3), 40-54.

Weisenberger, J. (2015). What science says about snacking. *Food & Nutrition.* Retrieved from

https://foodandnutrition.org/july-august-2015/science-says-snacking/

Wertz, R.R. (n.d.). Food & drink. [Web log post]. Retrieved from

http://www.ibiblio.org/chineseculture/contents/food/p-food-c01s01.html

World moms network. (2011). India: Parenting styles, east vs west. [Web blog post]. Retrieved

from http://www.worldmomsnetwork.com/2011/07/07/india-parenting-styles-east-vs-

west/

Wright, J. (2012). *Teacher praise: An efficient tool to motivate students.* Retrieved from

https://www.interventioncentral.org/sites/default/files/pdfs/pdfs_interventions/wright_usi

ng_praise_in_the_classroom_April_2012.pdf

Zhang, S. (2011). Chinese food culture: How many meals per day? [Web blog post]. Retrieved

from https://ezinearticles.com/?Chinese-Food-Culture:-How-Many-Meals-Per-

Day?&id=6277307

Appendix A: Tables

Table 1

Search Words for Depth Analysis of Cultures

Search Phrase	Link	Date MM/YYYY
The use of praise in the United states	https://www.interventioncentral.org/sites/default/files/pdfs/pdfs_interventions/wright_using_praise_in_the_classroom_April_2012.pdf	06/2019
the use of praise with children in the united states	https://www.understood.org/en/friends-feelings/empowering-your-child/celebrating-successes/ways-praise-can-empower-kids-learning-issues	06/2019
	https://www.psychologytoday.com/us/blog/parenting-news-you-can-use/201302/children-praise-why-certain-types-praise-may-backfire	06/2019
	https://www.psychologytoday.com/us/blog/pride-and-joy/201309/should-parents-praise-their-children	06/2019
Do Americans snack between meals?	https://www.usatoday.com/story/money/business/2014/09/29/snacking-consumer-eating-habits-nielsen/16263375/	06/2019
	https://www.washingtonpost.com/news/wonk/wp/2015/08/18/eating-alone-is-a-fact-of-modern-american-life/?noredirect=on&utm_term=.6c8d7b1a295e	06/2019
	https://foodandnutrition.org/july-august-2015/science-says-snacking/	06/2019
	http://healthland.time.com/2011/07/01/snack-attack-americans-are-eating-more-between-meals/	06/2019
The use of praise with children in the French culture	https://www.rd.com/advice/parenting/french-parenting/	06/2019
	https://cupofjo.com/2018/07/parenting-in-france-provence/	06/2019
parents praising children in French culture	https://matadornetwork.com/life/9-ways-parent-like-french/	06/2019
	https://www.talkinfrench.com/french-parenting/	06/2019
French culture vs American parenting	https://www.insider.com/differences-french-and-american-parenting-2018-3#french-parents-create-strong-boundaries-for-their-kids-1	06/2019
	https://www.care.com/c/stories/4721/parenting-styles-around-the-world/	06/2019

What do French people eat?	https://blog.udemy.com/what-do-french-people-eat/	06/2019
the use of praise in the Chinese culture	https://www.businessinsider.com/differences-chinese-and-american-parenting-2018-3	06/2019
	https://chinese4kids.net/how-to-praise-a-child-and-some-praise-phrases-in-chinese/	06/2019
	https://www.livestrong.com/article/239128-chinese-culture-parenting/	06/2019
Chinese vs American parenting	https://international.uiowa.edu/news/american-and-chinese-parenting-styles	06/2019
Chinese culture snack	https://www.sciencedirect.com/science/article/pii/S2352618115000657	06/2019
how many meals do Chinese people have in a day?	https://ezinearticles.com/?Chinese-Food-Culture:-How-Many-Meals-Per-Day?&id=6277307	06/2019
Chinese food culture	http://www.ibiblio.org/chineseculture/contents/food/p-food-c01s01.html	06/2019
	https://www.chinadiscovery.com/chinese-food/food-culture.html	06/2019
street food vendors in China	https://www.topchinatravel.com/community/blog/chinese-eating-culture-street-vendors-of-food.htm	06/2019
parenting styles in Mexico	https://cupofjo.com/2013/08/10-surprising-things-about-parenting-in-mexico/	06/2019
	https://aevans18.wordpress.com/	06/2019
Mexican parenting vs American parenting	http://ir.hust.edu.tw/bitstream/310993100/1599/1/12-01.pdf	06/2019
	http://nbclatino.com/2012/07/27/spanking-where-do-latino-parents-stand/	06/2019
Mexican parenting facts	https://family.lovetoknow.com/family-values/mexican-family-culture	06/2019
eating habits in Mexico	http://www.rufmexico.org/?p=155	06/2019
	https://www.tripsavvy.com/meals-and-mealtimes-in-mexico-1588864	06/2019

the use of praise in parenting in India	https://www.livestrong.com/article/1007669-parenting-indian-culture/	06/2019
parenting in the US versus parenting in India	https://www.theindusparent.com/different-parenting-styles-in-us-and-india	06/2019
	http://www.worldmomsnetwork.com/2011/07/07/india-parenting-styles-east-vs-west/	06/2019
	https://www.youthkiawaaz.com/2012/10/parenting-in-india-is-it-hindering-for-the-growth-of-a-child-or-more-productive-when-compared-to-the-western-ways-debate/	06/2019
snacking in the Indian culture	https://www.npr.org/sections/thesalt/2016/09/17/494258848/in-india-a-rich-food-culture-vanishes-from-the-train-tracks	06/2019
	https://classroom.synonym.com/eating-habits-in-the-indian-culture-12083298.html	06/2019
snacking between meals in India	https://timesofindia.indiatimes.com/india/67-of-Indians-choose-snacks-over-meals/articleshow/44872624.cms	06/2019

Note. Table is a display of the search words used to conduct the literature review for the depth analysis of cultures. How the search words are displayed on the table is how the researchers conducted the literature review.

Table 2

Articles Reviewed and Included in Literature Review

	JABA articles reviewed: 386				
	2014 Vol. 47 Reviewed: 82	2015 Vol. 48 Reviewed: 82	2016 Vol. 49 Reviewed: 82	2017 Vol. 50 Reviewed: 67	2018 Vol. 51 Reviewed:73
Issue 1	4	3	6	1	4
Issue 2	3	0	3	3	3
Issue 3	4	2	5	3	4
Issue 4	5	4	4	8	4
Included:	16	9	18	15	15
	Included in literature review: 73				

Table 3
Literature Results

Reference	Intervention	Reinforcer	Culture Within Text?	Explain	Modification	Explain
Rispoli, M., Camargo, S., Machalicek, W., Lang, R., & Sigafoos, J. (2014). Functional communication training in the treatment of problem behavior maintained by access to rituals. *Journal of Applied Behavior Analysis, 47*(3), 580-593.	Reduce problem behavior by rituals	P	No	-	N/A	-
Bukala, M., Hu, M.Y., Lee, Ward-Horner, J.C., & Fienup, D.M. (2015). The effects of work-reinforcer schedules in performance and preference in students with Autism. *Journal of Applied Behavior Analysis, 48*(1), 215-220.	Work completion	P	No	-	N/A	-
Akers, J.S., Higbee, T.S., Gerencser, K.R., & Pellegrino, A.J. (2018). An evaluation of group activity schedules to promote social play in children with autism. *Journal of Applied Behavior Analysis, 51*(3), 553-570.	Promote social play	P	No	-	N/A	-
Akers, J.S., Higbee, T.S., Pollard, J.S., Pellegrino, A.J., & Gerencser, K.R. (2016). An evaluation of photographic activity schedules to increase independent playground skills in young children with autism. *Journal of Applied Behavior Analysis, 49*(4), 954-959.	Independent playground skills	E	No	-	N/A	-
Bao, S., Sweatt, K.T., Lechago, S.A., & Antal, S. (2017). The effects of receptive and expressive instructional sequences on varied conditional discriminations. *Journal of Applied Behavior Analysis, 50*(4), 775-788.	Training sequence	E P	No	-	N/A	-
Belisle, J., Dixon, M.R., Stanley, C.R., Munoz, B., & Daar, J.H. (2016). Teaching foundational perspective-taking skills to children with autism using the peak-t curriculum: Single-reversal "I-You" deictic frames. *Journal of Applied Behavior Analysis, 49*(4), 965-969.	Perspective taking skills	P	No	-	N/A	-
Bergstrom, R., Najdowski, A.C., & Tarbox, J. (2014). A systematic replication of teaching children with autism to respond appropriately to lures from strangers. *Journal of Applied Behavior Analysis, 47*(4), 861-865.	Protect from strangers	P	No	-	N/A	-

Bergstrom, R., Najdowski, A.C., Alvarado, M., & Tarbox, J. (2016). Teaching children with autism to tell socially appropriate lies. *Journal of Applied Behavior Analysis, 49*(2), 405-410.	Tell socially appropriate lies	P	No	-	N/A	-
Borgen, J.G., Mace, F.C., Cavanaugh, B.M., Shamlian, K., Lit, K.R., Wilson, J.B., & Trauschke, S.L. (2017). A method to establish stimulus control and compliance with instructions. *Journal of Applied Behavior Analysis, 50*(4), 830-842.	Compliance with instructions	E P	No	-	N/A	-
Brodhead, M.T., Higbee, T.S., Gerencser., K.R., & Akers, J.S. (2016). The use of a discrimination-training procedure to teach mand variability to children with autism. *Journal of Applied Behavior Analysis, 49*(1), 34-48.	Teach mand variability	E	No	-	N/A	-
Brodhead, M.T., Higbee, T.S., Pollard, J.S., Akers, J.S., & Gerencser, K.R. (2104). The use of linked activity schedules to teach children with autism to play hide-and-seek. *Journal of Applied Behavior Analysis, 47*(3), 645-650.	Hide & seek	E P	Yes	Confirmed all participants came from English speaking households	N/A	-
Call, N.A., Mevers, J.M., McElhanon, B.O., & Scheithauer, M.C. (2017). A multidisciplinary treatment for encopresis in children with developmental disabilities. *Journal of Applied Behavior Analysis, 50*(2), 332-344.	Encopresis	E P	No	-	N/A	-
Carlile, K.A., DeBar, R.M., Reeve, S.A., Reeve, K.F., & Meyer, L.S. (2018). Teaching help-seeking when lost to individuals with autism spectrum disorder. *Journal of Applied Behavior Analysis, 51*(2), 191-206.	Help-seeking when lost	E	No	-	N/A	-
Contreras, B.P., & Betz, A.M. (2016). Using lag schedules to strengthen the intraverbal repertoires of children with autism. *Journal of Applied Behavior Analysis, 49*(1), 3-16.	Increase intraverbal responses	E P	No	-	N/A	-
Cook, J.L., Rapp, J.T., & Schulze, K.A. (2015). Differential negative reinforcement of other behavior to increase wearing of a medical bracelet. *Journal of Applied Behavior Analysis, 48*(4), 901-906.	Wearing of medical bracelet	P	No	-	N/A	-

Dass, T.K., Kisamore, A.N., Vladescu, J.C, Reeve, K.F., Reeve, S.A., & Taylor-Santa, C. (2018). Teaching children with autism spectrum disorder to tact olfactory stimuli. *Journal of Applied Behavior Analysis, 51*(3), 538-552.	Tact olfactory stimuli	E P	No	-	N/A	-
Day-Watkins, J., Murray, R., & Connell, J.E. (2014). Teaching helping to adolescents with autism. *Journal of Applied Behavior Analysis, 47*(4), 850-855.	Helping behavior	P	No	-	N/A	-
Delfs, C.H., Conine, D.E., Frampton, S.E., Shillingsburg, M.A., & Robinson, H.C. (2014). Evaluations of the efficiency of listener and tact instruction for children with autism. *Journal of Applied Behavior Analysis, 47*(4), 793-809.	Listener and tact training	E	No	-	N/A	-
DeQuinzio, J.A., & Taylor, B.A. (2015). Teaching children with autism to discriminate the reinforced and nonreinforced responses of others: implications for observational learning. *Journal of Applied Behavior Analysis, 48*(1), 38-51.	Discriminate between reinforced and nonreinforced responses	P	No	-	N/A	-
DeQuinzio, J.A., Taylor, B.A., & Tomasi, B.J. (2018). Observational learning and children with autism: Discrimination training of known and unknown stimuli. *Journal of Applied Behavior Analysis, 51*(4), 802-818.	Discrimination training	E P	No	-	N/A	-
DeRosa, N.M., Roane, H.S., Bishop, J.R., & Silkowski, E.L. (2016). The combined effects of noncontingent reinforcement and punishment on the reduction of rumination. *Journal of Applied Behavior Analysis, 49*(3), 680-685.	Reduce rumination	E	No	-	N/A	-
Dixon, M.R., Belisle, J., Munoz, B.E., Stanley, C.R., & Rowsey, K.E. (2017). Teaching metaphorical extensions of private events through rival-model observation to children with autism. *Journal of Applied Behavior Analysis, 50*(4), 744-749.	Metaphorical extensions	P	No	-	N/A	-
Dixon, M.R., Belisle, J., Stanley, C.R., Speelman, R.C., Rowsey, K.E., Kime, D., & Daar, J.H. (2017). Establishing derived categorical responding in children with disabilities using the peak-e curriculum. *Journal of Applied Behavior Analysis, 50*(1), 134-145.	Categorical responding	E P	No	-	N/A	-

Reference	Topic	Code				
Dixon, M.R., McCord, B.E., & Belisle, J. (2018). A demonstration of higher-order response class development in children. *Journal of Applied Behavior Analysis, 51*(3), 590-595.	Solve word-scramble puzzles	P	No	-	N/A	-
Dixon, M.R., Peach, J., Daar, J.H., & Penrod, C. (2017). Teaching complex verbal operants to children with autism and establishing generalization using the peak curriculum. *Journal of Applied Behavior Analysis, 50*(2), 317-331.	Complex verbal operants	E P	Yes	Participants ethnicity	N/A	-
Dowdy, A., Tincani, M., Nipe, T., & Weiss, M.J. (2018). Effects of reinforcement without extinction on increasing compliance with nail cutting: A systematic replication. *Journal of Applied Behavior Analysis, 51*(4), 924-930.	Compliance of nail cutting	E	No	-	N/A	-
Dunkel-Jackson, S.M., & Dixon, M.R. (2016). Self-control as a generalized operant behavior by adults with autism spectrum disorder. *Journal of Applied Behavior Analysis, 49*(3), 705-710.	Self-control	P	No	-	N/A	-
Dupuis, D.L., Lerman, D.C., Tsami, L., & Shireman, M.L. (2015). Reduction of aggression evoked by sounds using noncontingent reinforcement and time-out. *Journal of Applied Behavior Analysis, 48*(3), 669-674.	Reducing aggression cause by sounds	P	No	-	N/A	-
Farber, R.S., Dube, W.V., & Dickson, C.A. (2016). A sorting-to-matching method to teach compound matching to sample. *Journal of Applied Behavior Analysis, 49*(2), 294-307.	Matching to sample	E P	No	-	N/A	-
Fisher, W.W., Pawich, T.L., Dickes, N., Paden, A.R., & Toussant, K. (2104). Increasing the saliency of behavior-consequence relations for children with autism who exhibit persistent errors. *Journal of Applied Behavior Analysis, 47*(4), 738-748.	Saliency of behavior-consequence	E P	No	-	N/A	-
Frampton, S.E., & Shillingsburg, M.A. (2018). Teaching children with autism to explain how: A case for problem solving. *Journal of Applied Behavior Analysis, 51*(2), 236-254.	Teaching to explain how	P	No	-	N/A	-
Frampton, S.E., Wymer, S.C., Hansen, B., & Shillingsburg, M.A. (2016). The use of matrix training to promote generative language with children with autism. *Journal of Applied Behavior Analysis, 49*(4), 869-883.	Promote generative language	E P	No	-	N/A	-

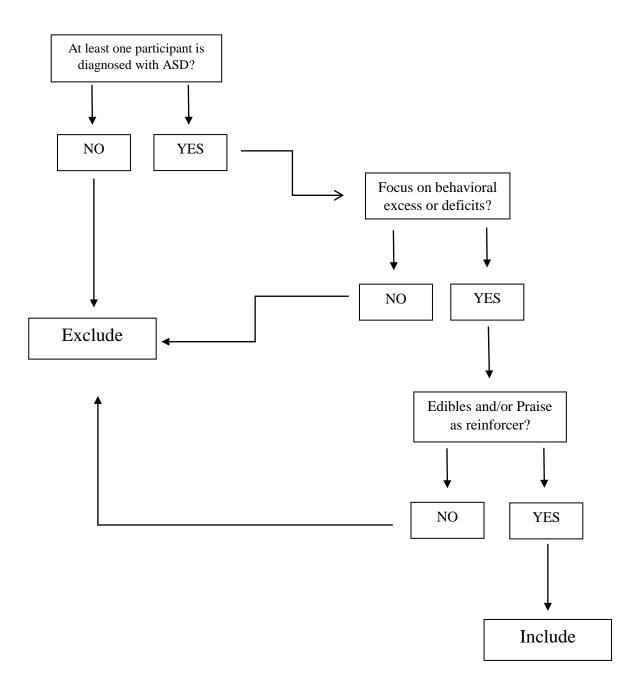|						
Garcia, D., Dukes, C., Brady, M.P., Scott, J., & Wilson, C.L. (2016). Using modeling and rehearsal to teach fire safety to children with autism. *Journal of Applied Behavior Analysis, 49*(3), 699-704.	Fire safety	P	No	-	N/A	-
Garcia-Albea, E., Reeve, S.A., Reeve, K.F., & Brothers, K.J. (2014). Using audio script fading and multiple-exemplar training to increase vocal interactions in children with autism. *Journal of Applied Behavior Analysis, 47*(2), 325-343.	Increase vocal interaction	E	No	-	N/A	-
Gevarter, C., O'Reilly, M.F., Kuhn, M., Mills, K., Ferguson, R., Watkins, L.,… Lancioni, G.E. (2016). Increasing the vocalizations of individuals with autism during intervention with a speech-generating device. *Journal of Applied Behavior Analysis, 49*(1), 17-33.	Increasing vocalizations	E	Yes	Ethnicity/ Client spoke Spanish and English at home	No	Sessions conducted in English
Ghaemmaghami, M., Hanley, G.P., & Jessel, J. (2016). Contingencies promote delay tolerance. Journal of Applied *Behavior Analysis, 49*(3), 548-575.	Delay tolerance	P	No	-	N/A	-
Gibbs, A.R., Tullis, C.A., Thomas, R., & Elkins, B. (2018). The effects of noncontingent music and response interruption and redirection on vocal stereotypy. *Journal of Applied Behavior Analysis, 51*(4), 899-914.	Vocal stereotypy	P	No	-	N/A	-
Greer, B.D., Neidert, P.L., & Dozier, C.L. (2016). A component analysis of toilet-training procedures recommended for young children. *Journal of Applied Behavior Analysis, 49*(1), 69-84.	Toilet training	E P	No	-	N/A	-
Grosberg, D., & Charlop, M.H. (2017). Teaching conversational speech to children with autism spectrum disorder using text-message prompting. *Journal of Applied Behavior Analysis, 50*(4), 789-804.	Conversational speech	P	Yes	Ethnicity	N/A	-
Groskreutz, N.C., Groskreutz, M.P., Bloom, S.E., & Slocum, T.A. (2014). Generalization of negatively reinforced mands in children with autism. *Journal of Applied Behavior Analysis, 47*(3), 560-579.	Mand	P	No	-	N/A	-
Grueber, D.J., & Poulson, C.L. (2016). Graduated guidance delivered by parents to teach yoga to children with developmental delays. *Journal of Applied Behavior Analysis, 49*(1), 193-198.	Yoga poses	E P	No	-	N/A	-

Gunby, K.V., Rapp, J.T., & Bottoni, M.M. (2018). A progressive model for teaching children with autism to follow gaze shift. *Journal of Applied Behavior Analysis, 51*(3), 694-701.	Follow gaze shift	E P	No	-	N/A	-
Gungy, K.V., & Rapp, J.T. (2014). The use of behavioral skills training in situ feedback to protect children with autism from abduction lures. *Journal of Applied Behavior Analysis, 47*(4), 856-860.	Protect from abduction lures	P	No	-	N/A	-
Hanley, G.P., Jin, C.S., Vanselow, N.R., & Hanratty, L.A. (2014). Producing meaningful improvements in problem behavior of children with autism via synthesized analyses and treatments. *Journal of Applied Behavior Analysis, 47*(1), 16-36.	Reduce problem behavior, comply with instruction	P	No	-	N/A	-
Hood, S.A., Lucyznski, K.C., & Mitteer D.R. (2017). Toward meaningful outcomes in teaching conversation and greeting skills with individuals with autism spectrum disorder. *Journal of Applied Behavior Analysis, 50*(3), 459-486.	Conversation and greeting skills	P	No	-	N/A	-
Jeffries, T., Crosland, K., & Miltenberger, R. (2016). Evaluating a tablet application and differential reinforcement to increase eye contact in children with autism. *Journal of Applied Behavior Analysis, 49*(1), 182-187.	Increase eye contact	E P	No	-	N/A	-
Jones, J., Lerman, D.C., & Lechago, S. (2014). Assessing stimulus control and prompting generalization via video modeling when teaching social responses to children with autism. *Journal of Applied Behavior Analysis, 47*(1), 37-50.	Teaching social responses	E P	No	-	N/A	-
Kobari-Wright, V., & Miguel, C.F. (2014). The effects of listener training on the emergence of categorization and speaker behavior in children with autism. *Journal of Applied Behavior Analysis, 47*(2), 431-436.	Listener training	E P	No	-	N/A	-
Landa, R.K., Hansen, B., & Shillingsburg, M.A. (2017). Teaching mands for information using "when" to children with autism. *Journal of Applied Behavior Analysis 50*(3), 538-551.	Mands	E P	No	-	N/A	-

Leaf, J.B., Cihon, J.H., Alcalay, A., Mitchell, E., Townley-Cochran, D., Miller, K., … & McEachin, J. (2017). Instructive feedback embedded within group instruction for children diagnosed with autism spectrum disorder. *Journal of Applied Behavior Analysis, 50*(2), 304-316.	Instructive feedback	P	No	-	N/A	-
Ledbetter-Cho, K., Lang, R., Daveport, K., Moore, M., Lee, A., Howell, Christine, D., … O'Reilly, M. (2015). Effects of script training on the peer-to-peer communication of children with autism spectrum disorder. *Journal of Applied Behavior Analysis, 48*(4), 785-799.	Peer-to-peer communication	E P	No	-	N/A	-
Lepper, T.L., & Petursdottir, A.I. (2017). Effects of response-contingent stimulus pairing on vocalizations of nonverbal children with autism. *Journal of Applied Behavior Analysis, 50*(4), 756-774.	Vocalization	E	No	-	N/A	-
Loughrey, T.O., Betz, A.M., Majdalany, L.M., & Nicholson, K. (2014). Using instructive feedback to teach category names to children with autism. *Journal of Applied Behavior Analysis, 47*(2), 425-430.	Instructive feedback	E P	No	-	N/A	-
MacDonald, J., & Ahearn, W.H. (2015). Teaching observational learning to children with autism. *Journal of Applied Behavior Analysis, 48*(4), 800-816.	Observational learning	E P	No	-	N/A	-
Majdalany, L., Wilder, D.A., Smeltz, L., & Lipschultz, J. (2016). The effects of brief delays to reinforcement on the acquisition of tacts in children with autism. *Journal of Applied Behavior Analysis, 49*(2), 411-415.	Tacts	E P	No	-	N/A	-
Miller, S.A., Rodriguez, N.M., & Rourke, A.J. (2015). Do mirrors facilitate acquisition of motor imitation in children diagnosed with autism? *Journal of Applied Behavior Analysis, 48*(1), 194-198.	Motor imitation	E P	No	-	N/A	-
Ming, S., Mulhern, T., Stewart, I., Moran, L., & Bynum, K. (2018). Training class inclusion responding in typically developing children and individuals with autism. *Journal of Applied Behavior Analysis, 51*(1), 53-60.	Class inclusion	P	No	-	N/A	-

Reference	Target					
Mitteer, D.R., Romani, P.W., Greer, B.D., & Fisher, W.W. (2015). Assessment and treatment of pica and destruction of holiday decorations. *Journal of Applied Behavior Analysis, 48*(4), 912-917.	Pica	E P	No	-	N/A	-
Najdowski, A.C., Bergstrom, R., Tarbox, J., & Clair, M.St. (2017). Teaching children with autism to respond to disguised mands. *Journal of Applied Behavior Analysis, 50*(4), 733-743.	Respond to disguised mands	P	No	-	N/A	-
Najdowski, A.C., Clair, M.St., Fullen, J.A., Child, A., Persicke, A., & Tarbox, J. (2018). Teaching children with autism to identify and respond appropriately to the preferences of others during play. *Journal of Applied Behavior Analysis, 51*(4), 890-898.	Respond appropriately to others preference	P	No	-	N/A	-
Nottingham, C.L., Vladescu, J.C., Kodak, T.M., Kisamore, A.N. (2017). Incorporating multiple secondary targets into learning trials for individuals with autism spectrum disorder. *Journal of Applied Behavior Analysis, 50*(3), 653-661.	Secondary targets	E P	No	-	N/A	-
Pennignton. R., Delano, M., & Scott, R. (2014). Improving cover-letter writing skills of individuals with intellectual disabilities. *Journal of Applied Behavior Analysis, 47*(1), 204-208.	Cover letter writing skills	P	No	-	N/A	-
Peters, L.C., & Thompson, R.H. (2015). Teaching children with autism to respond to conversation partners' interest. *Journal of Applied Behavior Analysis, 48*(3), 544-562.	Conversation skills	P	No	-	N/A	-
Roane, H.S., & DeRosa, N.M. (2014). Reduction of emergent dropping behavior during treatment of elopement. *Journal of Applied Behavior Analysis, 47*(3), 633-638.	Elopement	E P	No	-	N/A	-
Rodriguez, N.M., Levesque, M.A., Cohrs, V.L., & Niemeier, J.J. (2017). Teaching children with autism to request help with difficult tasks. *Journal of Applied Behavior Analysis, 50*(4), 717-732.	Request help with difficult tasks	E P	No	-	N/A	-
Schillingsburg, M.A., Bowen, C.N., Valentino, A.L., & Pierce, L.E. (2014). Mands for information using "who?" and "which" in the presence of establishing and abolishing operations. *Journal of Applied Behavior Analysis, 47*(1), 136-150.	Mand for information, "who" and "which"	E	No	-	N/A	-

Reference	Topic					
Shalev, R.A., Milnes, S.M., Piazza, C.C., & Kozisek, J.M. (2018). Treating liquid expulsion in children with feeding disorders. *Journal of Applied Behavior Analysis, 51*(1), 70-79.	Liquid expulsion	P	No	-	N/A	-
Shireman, M.L., Lerman, D.C., & Hillman, C.B. (2016). Teaching social play skills to adults and children with autism as an approach to building rapport. *Journal of Applied Behavior Analysis, 49*(3), 512-531.	Social play skills	E P	No	-	N/A	-
Silva, R.A., & Debert, P. (2017). Go/no-go procedure with compound stimuli with children with autism. *Journal of Applied Behavior Analysis, 50*(4), 750-755.	Conditional and emergent relations	P	No	-	Yes	Translated vocabulary test to Portuguese
Stanley, C.R., Belisle, J., & Dixon, M.R. (2018). Equivalence-based instructions of academic skills: Application to adolescents with autism. *Journal of Applied Behavior Analysis, 51*(2), 352-359.	Academic skills	P	No	-	N/A	-
Torres-Viso, M., Strohmeier, C.W., & Zarcone, J.R. (2018). Functional analysis and treatment of problem behavior related to mands for rearrangement. *Journal of Applied Behavior Analysis, 51*(1), 158-165.	Problem behavior related to mands	P	No	-	N/A	-
Valentino, A.L., LeBlanc, L.A., & Raetz, P.B. (2018). Evaluation of stimulus intensity fading on reduction of rapid eating in a child with autism. *Journal of Applied Behavior Analysis, 51*(1), 177-182.	Reduce rapid eating	P	No	-	N/A	-
Vedora, J., & Barry, T. (2016). The use of picture prompts and prompt delay to teach receptive labeling. *Journal of Applied Behavior Analysis, 49*(4), 960-964.	Receptive labeling	E P	No	-	N/A	-

Note. Reference is written in APA format. Reinforcer, E: edibles and P:praise. N/A: not available.

Appendix B: Figures

Figure 1. A visual representation of the process that was used to include or exclude a study in the literature review.