Journal of Agriculture and life Sciences

(An open access peer reviewed Journal)

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ARTICLES:

PERSONALITY AND INDIVIDUAL DIFFERENCES

Jovev, M., Green, M. J., Chanen, A. M., Cotton, S. M., & Coltheart, M. (2013).
Verbal learning and memory in patients with borderline personality disorder. Journal of

ABSTRACT

BECAN ICAST-CH Scales
(numbers of items as mentioned in the BECAN ICAST-CH, also correspond to ICAST-CH numbering with modifiers such as letters or numbers, viz. "A" or ".1")
All items use the following response code:
Once or twice a year, several times a year, monthly or every two months, several times a month, once a week or more often, not in the past year but it has happened to me before, never in my life, I don't want to answer

Sometimes, when children or adolescents are growing up, people say or do things, some of which could make the child or adolescent feel embarrassed, ashamed or bad. In the past year, has anyone in your family and living in your home:
Psychological Violence
Items*
18A. Shouted, yelled, or screamed at you very loud and aggressively?
19A. Insulted you by calling you dumb, lazy or other names like that?
19B. Cursed you?
19.1. Refused to speak to you (ignored you)?
19.2. Blamed you for his/her bad mood?
19.10. Read your diary, your SMS or e-mail messages without your permission?
19.11. Went through your bag, drawers, pockets etc. without your permission?
19.12. Compared you to other children in a way that you felt humiliated?
20A. Ashamed or embarrassed you intentionally in front of other people in a way that made you feel very bad or humiliated?
21. Said that they wished you were dead or had never been born?
22. Threatened to leave you or abandon you?
22.1. Threatened to kick you out of house or send you away?
23. Locked you out of the home?
24A. Threatened to invoke ghosts or evil spirits, or harmful people against you?
24B. Threatened to hurt or kill you?
26A. Did not get enough to eat (went hungry) and/or drink (were thirsty) even though there was enough for everyone, as a means of punishment?
27A. Have to wear clothes that were dirty, torn, or inappropriate for the season, as a means of punishment?

37A. Locked you up in a small place or in a dark room?
40. Threatened you with a knife or a gun?

Sometimes, people can hurt children and adolescents physically. Thinking about yourself, in the past year, has anyone in your family done something such as:

Physical Violence

Items*

32A. Pushed or kicked you?
32.1. Grabbed you by your clothes or some part of your body and shook you?
33A. Slapped you?
33B. Hit you on head with knuckle or back of the hand?
33C. Spanked you on the bottom with bare hand?
34A. Hit you on the buttocks with an object such as a stick, broom, cane, or belt?
34B. Hit you elsewhere (not buttocks) with an object such as a stick, broom, cane, or belt?
34.1. Hit you over and over again with object or fist ("beat-up")?
35A. Choked you or smothered you (prevent breathing by use of a hand or pillow) or squeezed your neck with hands (or something else)?
36A. Intentionally burned or scalded you?
36B. Put chilli pepper, hot pepper, or spicy food in your mouth (to cause pain)?
37B. Tied you up or tied you to something using a rope or a chain?
38A. Roughly twisted your ear?
38B. Pulled your hair?
38C. Pinched you roughly?
39A. Forced you to hold a position that caused pain or humiliated you as a means of punishment?

Sometimes people do sexual things or show sexual things to children and adolescents. Thinking about yourself, has anyone familiar to you or an unknown person ever made you feel bad or uncomfortable by doing any of these things to you?

Sexual Violence

Items*

41. Made you upset by speaking to you in a sexual way or writing sexual things about you?
42. Made you watch a sex video or look at sexual pictures in a magazine or computer when you did not want to?
43. Made you look at their private parts or wanted to look at yours?
44. Touched your private parts in a sexual way, or made you touch theirs?
45A. Made a sex video or took photographs of you alone, or with other people, doing sexual things?
46. Tried to have sex with you when you did not want them to?

Sometimes, when children are growing up, people who are responsible for caring fo r them do not know how to care for children properly, and the children do not get what they need to grow up healthy. Have any of these things happened to you in the past year?

Neglect

Items

28. Not taken care of when you were sick or injured - for example not taken to see a doctor when you were hurt or not given the medicines you needed?

29. You did not feel cared for?

30. Felt that you were not important?

31. Felt that there was never anyone looking after you, supporting you, helping you when you most needed it?

Positive Parenting

Items*

19.3. Told you to start or stop doing something (e.g. start doing your homework or stop watching TV)?

19.4. Explained you why something you did was wrong?

19.5. Gave you an award for behaving well?

19.6. Gave you something else to do in order to distract your attention (e.g. to tell you do something in order to stop you watching TV)?

19.7. Took away your pocket money or other privileges?

19.8. Forbade you something that you liked?

19.9. Forbade you to go out?

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* Items in bold had been excluded from the short-version of the ICAST-CH completed by the 11 y-o grade's pupils

Personality Disorders, 27(1), 26-38.

Jovev, M., Green, M. J., Chanen, A. M., Cotton, S. M., Proffitt, T. M., Coltheart, M., & Jackson, H. J. (2013). Emotional context processing in bipolar disorder: An fMRI study. Journal of Affective Disorders, 150(2), 644-651.

Koenigsberg, H. W., Harvey, P. D., Mitropoulou, V., Schmeidler, J., New, A. S., Goodman, M., Silverman, J., Serby, M., Schopick, F., Siever, L. J. (2002). Characterizing affective instability in borderline personality disorder. The American Journal of Psychiatry, 159(5), 784-788.

Levy, K. N. (2015). Transference-focused psychotherapy for borderline personality disorder: clinical applications. Psychiatric Clinics, 38(4), 611-625.

Liberzon, I., & Abelson, J. L. (2016). Context processing and the neurobiology of post-traumatic stress disorder. Neuron, 92(1), 14-30.

Linehan, M. M., Tutek, D. A., Heard, H. L., & Armstrong, H. E. (1991). Interpersonal outcome of cognitive behavioral treatment for chronically suicidal borderline patients. American Journal of Psychiatry, 148(5), 652-658.

Linehan, M. M., Comtois, K. A., Murray, A. M., Brown, M. Z., Gallop, R. J., Heard, H. L., ... & Lindenboim, N. (2006). Two-year randomized controlled trial and follow-up of dialectical behavior

therapy vs therapy by experts for suicidal behaviors and borderline personality disorder. Archives of General Psychiatry, 63(7), 757-766.

Liu, Y., Wong-Riley, M. T. T., & Liu, H. (2012). Epigenetic regulation of nuclear-encoded mitochondrial genes underlies dynamic adaptation of mitochondria to hypoxia. Archives of Biochemistry and Biophysics, 518(1), 62-70.

MacDonald, T. K., Fainman-Adelman, N., & Newman, L. E. (2013). Cognitive-behavioral treatment for borderline personality disorder: a meta-analysis of randomized controlled trials. Journal of Personality Disorders, 27(3), 289-305.

McMain, S. F., Guimond, T., Streiner, D. L., Cardish, R. J., Links, P. S., & Korman, L. (2009). Dialectical behavior therapy compared with general psychiatric management for borderline personality disorder: clinical outcomes and functioning over a 2-year follow-up. The American Journal of Psychiatry, 166(12), 1365-1374.

Miller, A. L., Rathus, J. H., Linehan, M. M., & Wetzler, S. (2014). Dialectical behavior therapy with suicidal adolescents. New York: Guilford Press.

Pascual-Leone, A., Amedi, A., Fregni, F., & Merabet, L. B. (2005). The plastic human brain cortex. Annual Review of Neuroscience, 28, 377-401.

Phelps, E. A. (2006). Emotion and cognition: Insights from studies of the human Amygdala. Annual Review of Psychology, 57, 27-53.

Ruocco, A. C., Medaglia, J. D., Tinker, J. R., Ayaz, H., & Ayaz, H. (2015). Affective interference in borderline personality disorder: an fNIRS investigation. Journal of Psychiatric Research, 68, 159-166.

Ruocco, A. C., Medaglia, J. D., Tinker, J. R., Ayaz, H., & Ayaz, H. (2015). Brain imaging and psychophysiology in bipolar disorder: A systematic review. Journal of Affective Disorders, 186, 256-270.

Sani, G., Napoletano, F., Vöhringer, P. A., & Koukopoulos, A. E. (2012). New approaches to the pharmacological treatment of borderline personality disorder. Expert opinion on investigational drugs, 21(4), 475-493.

Teicher, M. H., Samson, J. A., Polcari, A., & McGreenery, C. E. (2006). Sticks, stones, and hurtful words: relative effects of various forms of childhood maltreatment. American journal of psychiatry, 163(6), 993-1000.

Torgersen, S. (2000). Genetics of patients with borderline personality disorder. Psychiatric Clinics of North America, 23(1), 1-9.

Tull, M. T., Barrett, H. M., McMillan, E. S., & Roemer, L. (2016). A preliminary investigation of the relationship between emotion regulation difficulties and posttraumatic stress symptoms. Behavior Therapy, 47(2), 204-212.

Turrigiano, G. (2011). Too many cooks? Intrinsic and synaptic homeostatic mechanisms in cortical circuit refinement. Annual Review of Neuroscience, 34, 89-103.

Svoboda, M., Stuchlík, A., Raboch, J., & Sechko, E. (2020). Neuroplasticity in borderline personality disorder: State of the current knowledge. Psychiatria Danubina, 32(Suppl 1), 74-78.

Zanarini, M. C., Frankenburg, F. R., Hennen, J., & Silk, K. R. (2005). The longitudinal course of borderline psychopathology: 6-year prospective follow-up of the phenomenology of borderline personality disorder. The American Journal of Psychiatry, 162(5), 883-888.

EFFECTIVE BUSINESS PLANNING

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When starting and growing a business, the entrepreneur takes on all of the development and management responsibilities, as well as the risks and rewards. Many businesses fail because their owners fail to develop an effective plan. The business plan focuses on major issues and their contribution to the success of a new venture. The first and most important thing to remember when planning a business is to have a proper road map or blueprint for executing steps in an efficient manner.

PREVALENCE OF REACTOGENICITY OF COVID-19 VACCINE AMONG LIBYAN ADULTS: A CROSS-SECTIONAL STUDY

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Al-Zawam et al. (2022) Prevalence of reactogenicity of COVID-19 vaccine among Libyan adults: a cross-sectional study. Mediterr J Pharm Pharm Sci.

ABSTRACT:

The diversity of reactogenicity and its variation in terms of risk and prevalence among populations had raised the need to study and evaluate the reactogenicity of different COVID-19 vaccines in our region. Thus, this study aimed to estimate the prevalence of reactogenicity of COVID-19 vaccines and compare the three vaccines (AstraZeneca-Oxford, Sinovac and sputnik V). An analytical cross-sectional study was conducted using a semi-structured telephonic interview with a sample size of 430 individuals who received one of the included COVID-19 vaccines (AstraZeneca, Sinovac or sputnik V) and were recorded at one of the vaccination centers' records that were affiliated with Aljamail Department of the National Centre for Disease Control, Libya. 410 Libyan participants met the inclusion criteria and were enrolled in the final analysis. The study has shown that 57.3% (CI 52.7-62) of the participants had at least one reactogenic event. Pyrexia (40.7%), headache (27.3%) and fatigue (19.5%) were the most common reactogenic events. In conclusion: the study found that reactogenic events were mild to moderate and the COVID-19 vaccines were safe and encouraged our community to be vaccinated. However, prospective studies with larger sample sizes, longer follow-up and inclusion of important laboratory parameters such as IgG and IgM immunoglobulins are recommended to better understand the relationship between the reactogenicities of COVID-19 vaccines with immunity system development and the factors associated with it.

KEYWORDS:

AstraZeneca-Oxford, COVID-19 vaccine, Libya, reactogenicity, Sinovac, Sputnik V

Introduction

The COVID-19 vaccine provides acquired immunity against the COVID-19 disease-causing coronavirus (SARS-CoV-2) [1]. Multiple COVID-19 vaccines with different mechanisms of action have been authorized or licensed for use [2]. Generally, these vaccines can be classified into two major categories according to general approach of vaccines as followsing: the genetic-based approach

such as adenovirus vector vaccines (Oxford-AstraZeneca, Sputnik V) vaccines and the protein-based approach that depends on using a part or whole of the virus (Sinovac vaccine) [3]. Reactogenicity is the term used to describe subset of reactions that occur shortly after vaccination and are physical expression of the inflammatory response to vaccine such as fatigue, headache, inflammation at the injection site, myalgia and others that have been observed with COVID-19 vaccines [4 - 6]. They are resolved on their own in a matter of days without the need for medical treatment [4, 7]. However, allergy is one of the serious and life-threatening reactogenic events of the COVID-19 vaccines that are

typically rare but of considerable public interest [8]. The effective-ness of the COVID-19 vaccines in limiting COVID-19's spread as well as its severity and fatality has received widespread praise [1, 9, 10]. In 185 nations and territories between December 8, 2020 and December 8, 2021, COVID-19 vaccines prevented an additional 14.4 to 19.8 million deaths, according to a June study that has been published in the Lancet [11]. Whereas, on July 7, 2022, the accumulative number of those who received vaccines in Libya was 3 616272 individuals, whereas 2 275934 of them received only the first dose [12]. Therefore, reactogenicity and safety may influence a person's willingness to receive the vaccine. If a vaccine is thought to be overly reactogenic, the person may refuse additional doses or the healthcare provider may decide not to recommend it [4]. Although reactogenicity is generated by inflammatory mediators of the innate immune system, which can be good indicator of vaccine effectiveness, overexpression of these mediators may impair adaptive immune response [3]. Thus, the diversity of reactogenicity and its variation in terms of risk and prevalence among populations had raised the need to study and evaluate the reactogenicity of different COVID-19 vaccines in our region. Therefore, the objectives of this study were to estimate the prevalence of reactogenicity after the first dose of COVID-19 vaccine and to compare with the three vaccines (AstraZeneca-Oxford, Sinovac and Sputnik V).

Materials and methods

Study design: This analytical cross-sectional study was conducted using semi-structured telephonic interview that was performed to collect information about the population of the study according to the recommendations of DeJonckheere and Vaughn [13]. The list of the interview included three major sections: The first section was demographic variables (age and gender), the second section included clinical profile (chronic diseases, regular medicine intake and history of COVID-19 incidence) and the last section involved vaccine received, reactogenicity with terms of severity and duration, disability to perform daily activities, health care site utilization and taking of medication for reactogenicity.

Subject sampling: Participants were from Aljamail city and recorded at one of the vaccination centers affiliated with Aljamail Department of the National Center for Disease Control, Libya in a period from August 3rd, 2021 until September 2nd, 2021. The participants (n = 430) were selected by simple randomization with the sampling framework involving 1245 vaccinated. The inclusion criteria included adult Libyan individuals $\geq$ 18 who received the first dose of the following COVID-19 vaccines: AstraZeneca, Sinovac or Sputnik. They were contacted in the period from the second to the third week following vaccination. While the exclusion criteria were individuals who received other vaccines and individuals who had organ transplantation or one of the immunosuppressive diseases.

Ethical consideration: The study was reviewed and approved by the scientific and ethical committee of Faculty of Pharmacy, University of Sabratha, Sabratha, Libya (2021/07) while participants provided verbal consent before participation.

Statistical analysis: Data were analyzed by using the Statistical Package for the Social Science (SPSS) software version 26. Descriptive statistics were carried out using percentage and frequency. Inferential statistics were conducted with the Chi-square test and Kruskal-Wallis test with a significant

level of 0.05. The Phi and Cramer's V tests to estimate effect size were used [14]. An additional confidence interval level of 95% with the Bias-corrected and accelerated (BCa) type was calculated using bootstrapping based on 10 000 bootstrap samples.

PRECISION LIVESTOCK FARMING TECHNOLOGIES FOR THERMAL STRESS MANAGEMENT IN FARM ANIMALS

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The present study: **"Studies on the effect of ginger, garlic and fenugreek powder supplementation diets on the growth and survival of pacific white shrimp, *Litopenaeus vannamei*"** was conducted in the Wet Laboratory of the Department of Aquaculture, College of Fishery Science, Sri Venkateswara Veterinary University, Muthukur. L.vannamei shrimp was fed with three different herbal powder of ginger, garlic and fenugreek of varying levels of 1%, 2.5%, 5%, 2%, 4%, 6%, 0.5%, 1% and 1.5% of concentrations respectively to assess the optimal growth promoting potential and survival rate. The feeding trial was continued for 63 days with triplicates in each treatment. The growth parameters (ABW, weight gain, SGR), feed efficiency parameters (FCR) and survival rate were significantly ($P<0.01$) higher in treatment diets fed vannamei compared to control diet fed vannamei. Highest weight gain was observed in GP 4% supplemented diet fed vannamei compared to all other garlic supplemented diets. Growth measured as specific growth rate was improved with the herbal supplementation in the basal diets. The elevation in the SGR is in the order of garlic > ginger > fenugreek >control. It was found that GP 4% supplementation in the diet was optimal level of inclusion in garlic supplementation for vannamei culture. The diet supplemented with GP 4% fed vannamei was showed best FCR with higher significance ($P<0.01$) compared to other treatments. Survival rate of the vannamei fed diets containing garlic powder were significantly ($P<0.01$) higher in GP 6% (91.6%) compared to control (58%). Similar trend of elevated survival rates was noticed in vannamei at ZP 2.5 (91.3%) and FP 1.5% (83.3%) compared to control. The growth promoting ability of herbs with varying concentrations higher in GP 4% followed by ZP 2.5% and FP 1% supplemented in vannamei diets.

Note:

GP 2%: Per Kg feed contain 20g of garlic powde
GP 4%: Per Kg feed contain 40g of garlic powde
GP 6%: Per Kg feed contain 60g of garlic powde
ZP 1%: Per Kg feed contain 10g of ginger powde
ZP 2.5%: Per Kg feed contain 25g of ginger pow
ZP 5%: Per Kg feed contain 50g of ginger powder
FP 0.5%: Per Kg feed contain 5g of fenugreek powder
FP 1%: Per Kg feed contain 10g of fenugreek powder
FP 1.5%: Per Kg feed contain 15g of fenugreek

SIDE EFFECTS OF HIGH ENVIRONMENTAL TEMPERATURE ON REPRODUCTIVE EFFICIENCY OF RUMINANTS

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A B S T R A C T
The thermal comfort region for the greatest animals is between 4° C and 25° C. When the temperature surpasses 25° C, animals suffer heat stress. In severe heat stress, the profound body temperature increases, animal cells are affected and reproduction performance is reduced. Most physiological and biochemical variations could occur to protect essential cell functions in contradiction of heat stress and to permit a fast recovery from moderate hypothermic destruction. In hot countries, the climatic characteristic is the major constraint on reproductive efficiency of ruminants. Reproduction is reduced as a result of the extreme changes in biological functions affected by heat stress.
KEYWORDS:
Heat stress, ruminants, reproduction, alleviation techniques

INTRODUCTION

The best climatic conditions for animals would be something like an air temperature of 13 to 20 ºC, wind velocity of 5 to 18 km/ hour, relative humidity of 55 to 65%, and a moderate level of sunshine, and these factors are interrelated. Ambient temperature is related to other climatic factors but the relationship with the relative humidity seems to be the most important, since the feeling of warmth under high ambient temperature increases with high relative humidity percentage. Such a relationship induced to propose a measurement of the level of severity of heat stress using the two factors and was termed the temperature-humidity index. The effect of heat stress is enlarged when the relative humidity is larger than 50% [1]. In tropical and subtropical countries, the climatic characteristic is the major constraint on animal productivity. Production and reproduction are impaired as a result of the drastic changes in biological functions caused by heat stress [2]. According to the World Health Organization, World Meteorological Organization, and the United Nations Environmental Program, global warming would be a greater frequency and greater duration of exposure to hotter temperatures, especially, during the summer months. Typical hyperthermia sometimes occurs during severe heat in summer and as a result of hard expose to the sun throughout the world [3].

Side effects of heat stress on reproductive efficiency

Negative relationships between the temperature-humidity index and reproductive performances in animals were documented by many authors [4, 5, 6 & 7]. Heat stress define as a daily maximum THI of 72 or more from day 35 before to the day 6 after the day of breeding decreases the conception rate of lactating dairy cows by around 30% relative to days of breeding and when maximum THI

during three to one-day pre–artificial insemination values were greater than 80, conceptionratedecreasedfrom30.6%to23.0% [8]. Heat stress causes reproductive problems such as reduced semen quality, lower birth weights, decrease the immune system, and harmed the developing embryo lead to lower conception rates and fertility [9]. Fertility in farm animals is well-defined as the ability of the animal to conceive and maintain pregnancy if inseminated at the appropriate time relative to ovulation [10]. Poor estrous detection and embryonic or fetal losses are among the leading causes of poor reproductive performance. During the postpartum period, about 50% of standing periods of estrus are undetected and this failure in estrous detection can increase the average interval between successive inseminations to about 40-50 days and reduces both reproductive efficiency and profitability [11]. The interval from parturition to conception during summer was 24-67 days longer than during the winter even though barns during summer were supplied with evaporative coolers [12]. Heat stress severely reduces pregnancy rates in farm animals and the conception rates of lactating animals decreased sharply when maximum air temperature on the day after insemination exceeded 30ºC [11]. In contrast, conception rates for heifers did not decline until 35 ºC. Virgin heifers had higher conception rates for all services (50%) than lactating cows (34%) and suffered only slight depression of fertility during the summer months. Heifers required 1.5 services per conception compared with 2.3 for lactating cows. Conception rates decreased from 40 to 50% during months when ambient temperatures are greater and to be less than 10% during the months of the year when ambient temperatures are lesser [13].

High temperature lowered conception rates in cows more than in heifers since lactating cows were usually unable to maintain normal body temperature under heat stress conditions because of the high rates of lactation associated with internal heat production [14]. Higher environmental temperature is one of the major factors responsible for reduced fertility in farm animals. Heat stress harmed reproductive events by decreasing the expression of estrous behavior, altering ovarian follicular development, compromising oocyte competence, and inhibiting embryonic development [15]. Heat stress after insemination reduced the weight of corpora lutea and impaired concept growth [16]. Heat stress also increases the production of prostaglandin secretion (GF2α) in the endometrium, leading to the early regression of corpus leuteam or the death of embryos. The heat stress from 8 to 16 days after insemination modulated the uterine environment reduced the weight of corpora lutea and impaired concept growth [16]. Heat stress decreases the intensity and duration of behavioral estrus so that a smaller proportion of cows are detected in estrus under heat stress conditions and increases embryonic mortality [17]. In heat-stressed cows, the intrauterine environment is compromised which results in reduced blood flow to the uterus and elevated uterine temperature and these changes suppress embryonic development and increase early embryonic loss and minimize the proportion of successful inseminations [18]. High ambient temperature will also affect pre-attachment stage embryos but the magnitude of the effect has been reduced as embryos develop [19]. Holstein heifers subjected to heat stress from the onset of estrus had an increased proportion of abnormal and developmentally disturbed embryos as compared with heifers preserved at thermo-neutrality and the production of embryos by super ovulation is often reduced and embryonic development

compromised in seasons when ambient temperatures are greater [20]. Heat stress can affect endometrial prostaglandin secretion, leading to premature luteolysis and embryo loss. However, the majority of embryo loss occurs before day 42 in heat-stressed cows [21]. Heat stress in the period around the day of breeding was consistently associated with a reduced conception rate [22]. Abortions represent a loss of reproductive efficiency in normal bovine populations, and spontaneous abortion of dairy cows is an increasingly important problem that contributes substantially to low herd viability and production inefficiency by decreasing the number of potential female herd replacements and lifetime milk production by increasing costs associated with breeding and premature culling [23].

A positive relationship between heat stress during the pre-implantation period and early fetal loss in dairy cattle was found by Lopez-Gatius et al. [24]. Conception and pregnancy rates in purebred Holstein cows under subtropical Egyptian conditions were significantly decreased from 31.6% and 26.3% at the lesser THI to 11.5% and 9.9%, respectively, than at the greater THI. At the same time, conception and pregnancy rates were significantly reduced at either the lesser or greater THI while the embryonic loss rate was significantly increased from11.5% at the lesser THI to 22.2% at the greater THI [7]. The relationship between THI and the conception rate of lactating dairy cows to identify periods of exposure to heat stress relative to breeding in an area of moderate climate was studied by Schuller et al. [25]. The authors compared three different heat load indices related to conception rate: mean THI, maximum THI, and the number of hours above the mean THI threshold. The THI threshold for the influence of heat stress on the conception rate was 73. It was statistically chosen based on the observed relationship between the mean THI at the day of breeding and the resulting conception rate. Negative effects of heat stress were already apparent at lower levels of THI, and 1 hour of mean THI of 73 or more decreased the conception rate significantly. The conception rate of lactating dairy cows was negatively affected by heat stress both before and after the day of breeding. The greatest negative impact of heat stress on the conception rate was observed 21 to 1 day before breeding. When then mean THI was 73 or more in this period, the conception rate decreased from 31% to 12%. Compared with the average maximum THI and the total number of hours above a threshold of more than or 9 hours, the mean THI was the most sensitive heat load index relating to conception rate. The conception rate of dairy cows rose in moderate climates and was highly negatively affected by heat stress. The relationship between temperature and breeding efficiency indicates that high environmental temperatures were associated with low breeding efficiency [26].

Increased maximum temperature from 29.7 º C to 33.9 ºC was associated with a decrease in conception rate on the first service from 25 to 7% and fetal loss rate of Holstein was significantly increased from 17.1% at low THI to 24.9% at greater THI and abortion and stillbirth rates were significantly increased from 3.6% and 3.8% at low THI to 7.2% and 5.9% at greater THI, respectively[7].The same authors concluded that animals had a significantly longer calving interval and days open at high THI compared with low THI. Holstein cows had a significantly longer calving interval and days open at high THI (449 and 173 days, respectively), compared with low THI (146

days)[27].Heat stress affects reproduction by inhibiting the synthesis of gonadotropin-releasing hormone and luteinizing hormone which is essential for oestrus behavior expression and ovulation [28].Heat stress affects reproduction by inhibiting the synthesis of gonadotropin-releasing hormone and luteinizing hormone which is essential for oestrus behavior expression and ovulation[29].Body temperature greater than 39°C may harm the developing embryo from day 1-6 and lead to loss of pregnancy. Heat stress during late gestation may also lead to cows calving 10-14 days before their due date [30].

Heat stress affects reproduction by inhibiting the synthesis of gonadotropin-releasing hormone and luteinizing hormone which is essential for estrus behavior expression and ovulation [28]. It can be concluded that heat stress is one of the major concerns which affect the reproduction potential of farm animals almost in every part of the world. Elevated temperature and humidity as presented in THI negatively affect feed intake and altered hormonal concentrations leading to negatively affecting the reproductive efficiency of dairy cattle[31].

CONCLUSION

Animals raised under the hot summer season of tropical and subtropical countries are suffering from severe climatic stress for almost 6 months of the year and become uncomfortable suffering extremely in reproduction. Exposure of animals to heat stress evokes a series of drastic changes in the biological functions ending in impairment the reproductive efficiency.

REFERENCES:

1. Wiersma F (1990). Department of Agricultural Engineering, The University of Arizona, Tucson.(Cited in Armstrong, 1994).
2. Habeeb AAM, Marai IFM, Kamal TH. (1992). Heat stress, Chapter 2 In Farm Animals and Environment, edited by CJC Philips and D. Piggins, Commonwealth Agriculture Bureau International, Wallingford United Kingdom pp: 27- 47.
3. McMichael AJ, Ando M, Carcavallo R, Epstein P, Haines A, Jendritsky G, Kalkstein L, Kovats S, Odongo R, Patz J (1996). Climate change and human health: an assessment by a task group on behalf of the WHO, the World Meteorological Organization, and the United Nations Environment Program. (WHO/EHG/96.7.), Geneva.
4. HabeebAAM,GadAE,EL-TarabanyAA,AttaMAA.(2018a). NegativeEffectsofHeat StressonGrowthandMilkProductionofFarmAnimals.JournalofAnimal HusbandryandDairyScience2(1):1-12.
5. HabeebAAM,EL-Tarabany AA GadAE, AttaMAA (2018b). NegativeEffectsofHeat Stress on Physiological and Immunity Responses of Farm Animals. InternationalTechnologyandSciencePublication(ITS), Agricultural Studies 2 (1):1-18; DOI: 10.31058/j.as.2018.21001.
6. Habeeb, AAM, Mona N. Sharoud, H. A. Basuony and M. I. Michael (2018c).Effect of environmental climatic conditions on levels of some hormones, vitamins and trace elements in blood

and seminal plasma of rabbits. International Journal of Biotechnology and Recent Advances, 1 (1): 18-23. doi: 10.18689/ijbr-1000104.

7. El-Tarabany MS, EL-Tarabany AA (2015). Impact of thermal stress on the efficiency of ovulation synchronization protocols in Holstein cows. Animal Reproduction Science 160:138-145. doi: 10.1016/j.anireprosci.2015.08.002.

8. Garcia-Ispierto I, Lopez-Gatius F, Santolaria P, Yaniz JL, Nogareda C (2007a). Factors affecting the fertility of high producing dairy herds in northeastern Spain. Theriogenology, 67: 632 - 638. doi: 10.1016/j.theriogenology.2006.09.038.

9. Gantner V, Mijic P, Kuterovac K, Soli D, Gantner R (2011). Temperature- humidity index values and their significance on the daily production of dairy cattle. Mljekarstvo 61(1): 56-63.

10. Garcia-Ispierto I, López-Gatius F, Bech-Sabat G, Santolaria P, Yániz JL (2007a). Climate factors affecting conception rate of high producing dairy cows in northeastern Spain. The Biocenology 67(8):1379-1385. doi:10.1016/j. the riogenology. 2007.02.009.

11. Stevenson JS, Schmidt MK, Call EP (1983). Estrous intensity and conception rates in Holsteins. Journal of DairyScience 66: 275-280. doi: 10.3168/jds.S0022- 0302(83)81787-1.

12. King VL, Denise SK, Armstrong DV, Torabi M, Wiersma F (1988). Effects of a hot climate on the performance of first lactation Holstein cows grouped by coat color. Journal of Dairy Science 71: 1093-1096. doi: 10.3168/jds.S0022-0302(88) 79657-5.

13. 13. BadingaL,CollierRJ,ThatcherWW,WilcoxCJ(1985).Effects of climatic and management factors on conception rate of dairy cattle in subtropical environments.Journal of Dairy Science 68:78-85.10.3168/jds.S0022-0302(85)80800-6.

14. WolfensonD1,ThatcherWW,BadingaL,SavioJD,MeidanR (1995).Effectof heat stress on follicular development during the estrous cycle in lactatingdairycattle.BiologicalReproduction52 (5):1106-1113.

15. MondalS,MorA,ReddyIJ,NandiS,GuptaPSP (2017). HeatStressInduced Alterations in Prostaglandins; Ionic and Metabolic Contents of Sheep EndometrialEpithelialCells inVitro.Biomed JSci& Tech Res 1(4):1-5.

16. Biggers BG, Geisert RD, Wetteman RP, Buchanan DS (1987). Effect of heat stress on early embryonic development in the beef cow. Journal of Animal Science 64(5): 1512-1518.

17. ThatcherWW,CollierRJ (1986). Effectsofclimateon reproduction.In:Morrow,D.A. (Ed.). Current Therapy in Theriogenology 2. W. B. Saunders Co, Philadelphia, PA pp: 301-309.

18. Rivera RM, Hansen PJ (2001). Development of cultured bovine embryos after exposure to high temperatures in thephysiological range. Reproduction 121: 107-115.

19. Ealy AD, Drost M, Hansen PJ (1993). Developmental Changes in Embryonic Resistance to Adverse Effects of Maternal Heat Stress in Cows. Journal of Dairy Science 76(10):2899-2905.doi:10.3168/jds.S0022-0302(93)77629-8.

20. Putney DJ, Mullins S, Thatcher WW, Drost M, Gross TS (1989). Embryonic development in super ovulated dairy cattle exposed to elevated ambient temperatures between the onset of oestrus and insemination. Anim.Reprod. Sci. 19: 37-51. doi:10.1016/0378-4320(89)90045-6.

21. Vasconcelos JLM, Silcox RW, Lacerda JA, Pursley GR, Wiltbank MC (1998). Pregnancy rate, pregnancy loss, and response to heat stress after AI at 2 different times from ovulation in dairy cows. Biological Reproduction 56: 140-148.

22. Morton JM, Tranter WP, Mayer DG, Jonsson NN (2007). Effects of environmental heat on Conception rates in lactating dairy cows: critical periods of exposure. Journal of Dairy Science 90: 2271-2278. doi: 10.3168/jds.2006-574.

23. Thurmond MC, Branscum AJ, Johnson WO, Bedrick EJ, Hanson TE (2005). Predicting the probability of abortion in dairy cows: a hierarchical Bayesian logistic-survival model using sequential pregnancy data. Prev. Vet Med 68:223-239. doi: 10.1016/j.prevetmed.2005.01.008.

24. López-Gatius I, Santolaria P, Yániz JL, Nogareda C, López-Béjar M (2005). Relationship between heat stress during the peri-implantation period and early fetal loss in dairy cattle. Theriogenology 65(4): 799-807. doi: 10.1016/j. the riogenology, 06.011.

25. Schüller LK, Burfeind O, Heuwieser W (2014). Impact of heat stress on conception rate of dairy cows in the moderateclimate considering different temperature-humidity index thresholds, periods relative to breeding, and heat load indices.Theriogenology 81(8): 1050-1057.doi:10.1016/j.theriogenology. 2014.0 1.029.

26. Cavestany D, EL-Wishy AB, Foote RH (1985). Effect of season and high environmental temperature on fertility of Holstein cattle. Journal of Dairy Science 68: 1471-1478. doi: 10.3168/jds.S0022-0302(85)80985-1.

27. Bernabucci U, Ronchi B, Lacetera N, Nardone A (2002). Markers of oxidative status in plasma and erythrocytes of transition dairy cows during the hot season. Journal of Dairy Science 85: 2173-2179.

28. Temple D, Bargo F, Mainau E, Ipharraguerre I, Manteca X (2015). Heat stress and efficiency in dairy milk production: A practical approach. The Farm Animal Welfare Fact Sheet No. 12, Farm Animal Welfare Education Centre. http://www.fawec.org/media/com_lazypdf/pdf/fs12-en.pdf.

29. Habeeb AAM (2019). Negative effects of heat stress conditions during the hot summer season in Egypt on rabbits productivity and alleviation of these effects using some supplementary nutrients. International Journal of Agriculture and Biological Sciences 3 (6): 1-15. Doi: 10.5281/zenodo. 3613521.

30. Morrill K (2011). Heat stress-impact on lactating cattle. Cornell University Cooperative Extension. http://www.ccenny.com/wp-content/uploads/ Heat-Stress-Part-impact lactating-cows.pdf. 2011.

31. Thornton PK, Boone RB, Villegas JR (2015). Climate change impacts on livestock. Working Paper No. 120, CGIAR Research Program on Climate Change, Agriculture and Food Security, Denmark.

LIPASE ENZYME BASED GREEN CHEMISTRY DETERGENTS FOR CLEANING INDUSTRY

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ABSTRACT:
A detergent composition is divided into different classes on the basis of raw materials such as surfactants, builders, bleaching agents, enzymes, and minors which remove dirt, stain and soil from surfaces or textiles gave them pleasant feel and odour. This review paper describes the history, composition, types, mechanism, how detergent work, environmental effects and consumption of laundry detergents. This article also reviews the use of enzymes, especially lipases as detergents and different types of lipase containing detergents available in the market. This review describes the applications of microbial lipases in detergents which can reduce the environmental load of detergent products as the chemicals used in conventional detergents, biodegradable, non-toxic and leave no harmful residues. Besides lipases, other enzymes are widely used in household cleaning products, in laundering, medical & agriculture.

1. INTRODUCTION

Detergent has traditionally been a powdered or granular solid, but the use of liquid laundry detergents has gradually increased over the years and nowadays uses of liquid detergent equals or even exceeds the use of solid detergent. Some brands also manufacture laundry soap in tablets and dissolvable packets, so as to eliminate the need to measure soap for each load of laundry. The term 'detergency' is used to describe the process of cleaning by surface active agent. Detergency can be defined as removal of unwanted substance (soil) from a solid surface brought into contact with a liquid. The word 'soil' in connection with textile surfaces most frequently denotes the unwanted accumulation of oily or particulate materials on the surfaces or interior of fibrous structure [5].

There are two kinds of detergents with different characteristics:

1. Phosphate detergents: These types of detergent contain phosphates and are highly caustic. Phosphate detergents are used in laundry detergent to soften hard water and help to suspend dirt.
2. Surfactant detergents: These types of detergents contain surfactants are very toxic in nature. The differences are that surfactant detergents used to enhance the wetting, foaming, dispersing and emulsifying properties of detergents.

Lipases are added to detergents such as household and industrial laundry and in household dishwashers, where their function is in the removal of fatty residues and cleaning clogged drains. The cleaning power of lipase (or other enzyme containing) detergents increases markedly. The enzymes such as proteases, amylases, cellulases and lipases are added to the detergents to improve their efficiency.

Sixty years ago it was discovered that chemical technology could change the molecular structure of water with the introduction of the very first laundry detergent. It was understood that lowering of surface tension is needed for better cleaning and this was achieved by using chemical surfactants

Prior to world war first, laundry products consisted principally of sodium and potassium neutralized fatty acid soaps. The first synthetic detergents were produced in Germany during World War II as replacement of scarce animal fats traditionally used in the production of soaps, during the shortages. These were called branched chain alkyl benzene sulfonates and short chain alkyl naphthalene sulfonates. Like soap, they could take hard minerals out of water, leaving it soft[5,6].

At the time of conversion to compacts the most widely used surfactants in synthetic powder detergents were the anionic, linear alkyl aryl sulfonates (LASs) and long chain fatty alcohol sulfates (ASs), to a lesser extent, long chain fatty acids, and the nonionic alkyl ethoxylates. With the recent change in formulations and manufacturing processes precipitated by a transition to compact detergents, the major U. S. manufacturers took the opportunity to formulate out of phosphate together.

Composition: Composition of soaps and detergents are as follows,

3.1 Surfactants

The term surface-active agent represents a heterogeneous and long-chain molecule containing both hydrophilic and hydrophobic moieties. By varying the hydrophobic and hydrophilic part of a surfactant, a number of properties may be adjusted, e.g. wetting ability, emulsifying ability, dispersive ability, foaming ability and foaming control ability.

detergents may contain more than one kind of surfactants. These surfactants differ in their ability to remove certain types of soil, in their effectiveness on different fabrics and in their response to water hardness.

3.1.1 Cationic surfactants

Cationic surfactants are compounds with a positively charged nitrogen atom and at least one hydrophobic, long chain substituent in the molecule. The most common cationic surfactants are the quaternary ammonium compounds with the general formula R’R’’R’’’R’’’’N+X–, where X– is usually chloride ion and R represents alkyl groups such as alkyl trimethylammonium chloride, dodecyl trimethyl ammonium chloride etc.

3.1.2 Anionic surfactants

Anionic surfactants, such as soap, often have a sodium, potassium, or ammonium group, as in sodium stearate. Linear chains are preferred since they are more effective and more degradable than branched ones. The most commonly used hydrophilic groups are carboxylates, sulphates, sulphonate and phosphates.

3.1.3 Nonionic surfactants:

Nonionic surfactants do not ionize in solution. Lack of charge enables them to avoid water hardness deactivation. The most common nonionic surfactants are those based on ethylene oxide, referred to as ethoxylated surfactants, alcohol ethoxylates, alkyl phenol ethoxylates, fatty acid ethoxylates, mono alkanol amide ethoxylates, sorbitol ester ethoxylates, fatty amine ethoxylates and ethylene oxide-propylene oxide copolymers. Another important class of nonionic is the polyhydroxy products such as glycol esters, glycerol (and polyglycerol) esters, glucosides (and polyglycolides) and sucrose esters. Amine oxides and sulfonyl surfactants represent nonionic with a small head group.

3.1.4 Amphoteric surfactants

These are surfactants containing both cationic and anionic groups. The most common amphoteric surfactants are the N-alkyl betaines, which are derivatives of trimethyl glycine (CH3)3NCH2COOH (described as betaine). An example of betaine surfactant is lauryl amido propyl dimethyl betaine. These alkyl betaines are sometimes described as alkyl dimethyl glycinates. The main characteristic of amphoteric surfactants is their dependence on the pH of the solution in which they are dissolved. In acid pH solutions, the molecule acquires a positive charge and behaves like a cationic surfactant, whereas in alkaline pH solutions they become negatively charged and behave like an anionic one. A specific pH can be defined at which both ionic groups show equal ionization (the isoelectric point of the molecule). In addition to above there is addition of builders, zeolites, alkaline agents, corrosion inhibitors, colorants, fragrances, oxygen bleach, Opacifiers, bleaching agents etc.

Main focus of this review is on enzymes which are now popularly blended into detergent formulations. Enzymes aid in breaking down complex soils, especially proteins such as blood and grass, so they can be more easily removed from fabrics. Protease and lipase are used to digest the soils of proteins and lipids, respectively. Cellulose is recently developed as an enzyme component of a detergent that attacks a substrate (cotton) to remove the soils [1,2].

Mechanism of action of detergent: Soaps and detergents are made from long molecules that contain a head and tail. These molecules are called surfactants; the diagram below represents a surfactant molecule.

The head of the molecule is attracted to water (hydrophilic) and the tail is attracted to grease and dirt (hydrophobic). When the detergent molecules meet grease on clothes, the tails are drawn into the grease but the heads still sit in the water.

The attractive forces between the head groups and the water are so strong that the grease is lifted away from the surface. The blob of grease is now completely surrounded by detergent molecules and is broken into smaller pieces which are washed away by the water. The detergent molecules also help to make the washing process more effective by reducing the surface tension of the water. Surface tension is the force which helps a blob of water on a surface hold its shape and not spread out. The surfactant molecules of the detergent break apart these forces and make water behave, well, wetter!

Emulsification is of key importance for a large number of processes such as oil recovery, detergency and the preparation of foodstuffs Emulsion is the main application of surfactant adsorption at liquid/liquid interfaces. An emulsified mixture of water in oil is commonly called mousse. During laundry, detergent is act as an emulsifier which stabilizes an emulsion and lowers the oil-solution interfacial tension and makes easy emulsification of the oily soils possible. Solubilization is usually describes as the process of incorporation of an “insoluble” substance (usually referred to as substrate or solubilization) into surfactants micelles (the solubilizer). The process of solubilization involves the transfer of co-solute from the pure state, either crystalline solid or liquid to micelles.

ENZYMES USED IN DETERGENTS

Enzymes is a biological catalyst and a substance produced by a living organism, which act as catalysts for example protease & lipase [1,3,4].

Table 2. Four classes of enzymes are generally used in detergents.

Proteases	Most widely used enzymes in the detergent industry remove protein stains such as grass, blood, egg and human sweat which tend to adhere strongly to textile fibers.
Amylases	Used to remove residues of starch-based foods like potatoes, spaghetti, custards, gravies and chocolate.
Lipases	Decompose fatty material. Lipase is capable of removing fatty stains such as fats, butter, salad oil, sauces and the tough stains on collars and cuffs.
Cellulases	Modify the structure of cellulose fiber on cotton and cotton blends. When it is added to a detergent, it results in; color brightening, softening and soil removal.

SOURCE

The enzyme protease was produced from alkaliphilic Bacillus clausii KSM-K16 and strain KP-43 and Bacillus sp. strain KSMKP43 and have been incorporated into laundry detergents. Subtilisin-like serine proteases belonging to family A of subtilize super family has been used in laundry and dishwashing detergents. A number of alkaliphilic Bacillus produce alkaline cellulase (carboxy methyl cellulase) that is used as an additive for improving the cleaning effect of detergents. Enzymatic properties of some cellulases fulfilled the essential requirements for enzymes to be used practically in laundry detergents.

LIPASES IN DETERGENTS

There has been a tremendous increase in the significance of the biotechnological applications of lipases since the last two decades. Lipases and cellulases in certain detergents remove dirt/ cattle manure from domestic animals. Lipases are also used in degreasing and water reconditioning in combination with oxido-reductases that require less surfactants and work at

EFFECTIVE ACTIVITIES TO ENHANCE SPOKEN ENGLISH FOR LANGUAGE LEARNERS

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ANNOTATION:
This article will help learners who will learn English and who are currently learning English to develop and improve the speaking skills, which is one of the 4 skills of the English language. The article also gives ideas about some activities to enhance spoken English.

KEY WORDS:
Pronunciation, Grammar, Vocabulary, Fluency, Imitative, Intensive, Responsive, Interactive, Extensive (monologue).

Learners learn English for many and extremely varied reasons. Taking these reasons, and language acquisition needs, into consideration when planning a class or individual instruction is crucial for a successful learning experience. This is probably as important for learners as for the teacher. When a learner understands his/her reasons for learning English well, he then can better plan his learning strategy. In the class, he/she can help the teacher identify needs and desires. If the learners are learning alone, he/she can find learning materials based on a better knowledge of what his/her objectives are. For instance, learners can train activities. Let's take a look at some activities for learning English and improving Spoken English. In addition, now we firstly see the component of speaking. During learning English, we need to know these components.

Among the four skills, speaking skill is a difficult one to assess with precision, because of the fact that speaking is a complex skill to acquire. Loda [1977:234]

says that four or five components are generally recognized in analysis of speech process as the follows;

1) Pronunciation

Pronunciation is the way for student to produce clearer language when they speak. It deals with the phonological process that refers to the component of a grammar made up of the elements and principles that determine how sounds vary and pattern in a language.

2) Grammar

It is needed for learners to arrange a correct sentence in conversation. It is in line with explanation that the learner's ability to manipulate structure and to distinguish appropriate grammatical from in appropriate ones. The unity of grammar also learns the correct way to gain expertise in a language in oral and written form.

3) Vocabulary

One can not conduct communication effectively or express their ideas both oral and written form if they do not have sufficient vocabulary. So, vocabulary means the appropriate diction which is utilized in communication.

4) Fluency

Fluency can be defined as the ability to speak fluently and accurately. Fluency include a reasonably fast speed of speaking and only a small number of pauses and "ums" or "errs". These sign indicate that speakers do not have spent a lot of time searching or the language items needed to express the message.

If we know these components of English, we can learn Spoken English easily in a short time and we achieve our goals then.

Let's go considering successful of Speaking Activities in following;

Speaking activities can give learners enormous confidence and satisfaction, and with sensitive teacher guidance can encourage them into further study. Moreover, good speaking can and should be highly motivating.

Many speaking tasks (role-playing, discussion, problem-solving, etc.) are intrinsically enjoyable in themselves, Harmer [1998:88]. To most people, mastering the art of speaking is the single most essential aspect of learning a second or foreign language, and success is measured in terms of the ability to carry out conversation in the language, Nunan [1999:39].

However, sometimes spoken language is easy to perform, but in some cases it is difficult, Brown [2001:270]. When people want to speak fluently, sometimes they get difficulties to do it. In order that they can carry out the successful speaking, they have to fulfill some characteristics of successful speaking activity such as:

1) Learners talk a lot. As much as possible this activity is in fact allowed for learners talk. This may be obvious, however, often most time is taken up with teacher talk or pauses.
2) Participant is even. Classroom discussion is not dominated by a monitory of talk active participants. All get a chance to speak and contributions are fairly evenly distributed.
3) Motivation is high. Learners are eager to speak because they are interested in the topic and have something new to say about it, or they want to contribute to achieve a task objective.
4) Language is of an acceptable level. Learners express themselves in utterances that are relevant, easy comprehensible to teach other and of acceptable level of language accuracy.

There are five types of speaking activities for improving Spoken English. They are " Imitative, Intensive, Responsive, Interactive, and Extensive namely (monologue)". To make us clearer to understand each of type the writer will explain one by one:

Imitative

One of types of speaking performance is the ability to simply a word or phrase or possibly a sentence. Drilling is a part of the communicative language classroom offer learners an opportunity to listen and to orally repeat certain wordsof language that may cause some linguistic difficulty, either the

phonological or grammatical. They offer limited practice through repetition; they allow one to focud on one element of a language in a controlled activity.

Intensive

Intensive speaking goes one step beyond imitative to include any speaking performance, that is designed to practice some phonological and grammatical aspect of language. Intensive speaking can be self initiated or it can even form part of some pair work activity, where learners are going over certain form of language, Brown [2001:273] . For example of intensive assessment tasks include directed response tasks, reading aloud, sentence and dialogue completion, limited picture-cued tasks including simple sequences and translation up to simple sentence level.

Responsive

A good of learners speech in the classroom is responsive; short replies to teacher or learner's initiated questions or comments. These replies are usually sufficient and do not extend into dialogues, such speech can be meaningful and authentic. Responsive assessment tasks include interaction and test comprehension but at the somewhat limited level of very short conversation, standard greetings and small talk, simple requests and comments and the like.

Interactive

The difference between responsive and interactive speaking is in the length and complexity of the interaction. According to Brown [2004:142] states that interaction can take the two forms of transactional language or interpersonal exchange. It means that, transactional language has the purpose of exchanging specific information. Conversation for example may have more of a negotiate nature to them than does responsive speech. While interpersonal exchange has more for the purpose of maintaining social relationship than for the transmission of facts and information. These conversations are a title trickier for learners because they can involve some or all of the following factors.

Extensive (monologue)

Learners at intermediate to advanced levels are called on to give extended monologues in the form of oral reports, summaries, short speeches or perhaps story-telling during which the opportunity for oral interaction from listeners is either highly limited (perhaps to nonverbal responses) or ruled out altogether. Language style is frequently more deliberative (planning is involved) and formula extensive tasks, but can not rule out certain informal monologues such as casually delivered speech (for example, my vacation in the mountains, recounting the plot of a novel or movie).

Finally, you must practice what you are learning! Remember that you teaching your mouth a new way to move. You are building muscles that you do not use in your own language. It is like going to the gym and exercising your body. Do not forget to exercise your mouth a little bit each day.

We need more time to improve our Spoken English and we ought to practice more. Spoken English plays an important role in English learning. As well as a good level of communicative competence is the final aim of English learning. How to cultivate and enhance the learners' competence of Spoken English has become the focal point. By using these activities the learners can gain their aims.

REFERENCES:

1. Lado, Robert. 1977. Language Testing. London: Longman.
2. Harmer. Jeremy. 1998. How to teach English. England: Longman.
3. Nunan. D. 1999. Second Language Teaching and Learning. USA. Heinle and Heinle Publisher.
4. Brown. H. Dougles. 2001. Teaching by Principles: An Interactive Approach to Language Pedagogy, second edition. New York: Pearson Education Company.
5. Brown. H. Douglas. 2004. Language Assessment Principles and Classroom Practices. San Fransisco.