

Original Research Paper

Pharmacology

Assessment of Behavioral Characteristics and Learning Strategies in Secondary School Students in Thane city.

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The aim of the study was to assess the Behavioral characteristics (BC) and Learning Strategies of Secondary school students in Thane city. **100 students** of a Secondary school located in Thane city were enrolled in the study. **80 students** were from 7^{th} grade (7A & 7B) & 21 from 8th grade (8A & 8B) i.e, only **91/100** students actually participated in the study. Results showed that **77.20 %** & 90.45% students of 7th & 8th grade respectively were very punctual regards time to school. 94.28 % & 85.72% students of either grade were regular in attendance. 95.7 % of 7th grade & 85.72% of students of 8th grade didn't violate their dress code. NO student of the school was involved in using alcohol, smoking & illegal drugs. 87.2% & 71.43% of students of 7th & 8th grade respectively were interested in learning. Positive finding to see that 44/70 (62.85%) of 7th & 19/21 (90.45%) of 8th Std. students applied the things they have learned in day to day situations

KEYWORDS

Secondary school students, Questionnaire, Evaluation

INTRODUCTION

Behavioral assessment (1) is a method used in the field of psychology to observe, describe, explain, predict and sometimes correct behavior. Behavioral assessment can be useful in clinical, educational and corporate settings.

Behavioral assessment involves observing or otherwise measuring a person's actual behavior—in other words, what they actually do—in one or more settings where the person is experiencing some sort of behavioral difficulty.

Once the behavior is defined and measured, careful consideration is given to different factors that may be reinforcing and maintaining the behavior.

Finally, a detailed plan containing strategies for changing or replacing the behavior is generated. Behavioral assessment typically involves one or more interviews and observations, and may involve various **formal and informal assessment** measures as needed

Behavioral assessment generally falls within two broad categories: clinical behavioral assessment, and functional behavioral assessment. Clinical behavioral assessment is usually conducted for problems exhibited in home, school, work, or other settings, and is usually produced to provide a clear intervention plan for therapists, case managers, family members, or others who work with the person being evaluated.

Functional behavioral assessment (2), or FBA, is usually conducted by a school system whenever there are concerns that a student with a disability or who is suspected of having a disability is demonstrating inappropriate behaviors. School districts are required by law to produce FBAs under these circumstances as part of the Individuals with Disabilities Education Act, or IDEA. Beyond these legal requirements, FBAs have many similarities to clinical behavioral assessments, with the notable exceptions that FBAs are more limited in scope, depth, and applicability.

CEH clinicians are available as consultants for the construction of

FBAs, as well as expanding behavioral assessments to areas and settings not addressed by the FBA. They are also are well-skilled to provide these kinds of Clinical behavioral assessment evaluations.

A functional assessment is an approach to figuring out why your child acts a certain way. It uses a variety of techniques to understand what's **behind inappropriate behaviors**. This includes looking at non-academic factors that might be contributing to your child's frustration with learning.

Knowing what's behind inappropriate behavior can help you and the school find ways to change the behavior. The basic idea behind this approach is that your child's behavior serves a purpose. Whether he's aware of it or not, your child acts a certain way to get to a desired outcome or goal.

A key part of a functional assessment is figuring out what triggers certain behaviors in your child at home, in school and with friends. Sometimes parents and teachers assume they know what's causing a child's behavior because they've seen other children do similar things. But it's important to remember that the causes for the same behavior can vary widely among children.

The Steps of a Functional Assessment

During a functional assessment, the team gathers information and uses it to create a plan to help your child behave in more appropriate ways. Here are the steps the team takes.

Step #1: Defining the inappropriate behavior.

Using vague words to describe your child's behavior can make it harder to gather the best information. Saying that your child is "disruptive" doesn't give enough information. And it could mean different things to different people.

Instead, it's important to describe the behavior in an objective, specific way. For example, you or a teacher might say that your child "rips up, throws work papers and is argumentative when asked to show work in math class."

Step #2: Collecting, comparing and analyzing information.

This is several steps rolled into one. Team members work to pull together information from your child's records, interviews and questionnaires. Their goal is to answer questions like:

- Where is this behavior happening?
- How often is the behavior occuring?
- What tends to happen right before and
- · Where is it not happening?
- Who is around when it occurs?
- What is a more acceptable behavior that right can be used as a replacement?

An ABC chart is a tool that's frequently used in this step. A stands for Antecedent (what happens before), B is for Behavior (the action or reaction), and C is for Consequence (what happens after).

Your child can help provide this information too. Only he can tell you how he feels in these situations. Asking him to try to keep track of what he is feeling and when could help the team.

Step #3: Hypothesizing reasons for the behavior.

A hypothesis is a best guess based on the information you have. The team works together to figure out what your child's behavior is telling them. What does he get out of ripping up his paper and being disruptive? It's the team's job to figure out what he is escaping, avoiding or getting from the behavior.

Step #4: Developing a plan.

Once the team has an idea of the reasons behind your child's inappropriate behavior, the team works closely with the behavior specialist or psychologist to find ways to see if the hypothesis is right. This means changing something in the environment to see if it changes the behavior.

Create **a behavior intervention plan** (BIP). A BIP is a plan that's designed to teach and reward positive behaviors. This can help prevent or stop problem behaviors in school. For example, it might be helpful to see how your child acts when he's asked to explain the steps of a math problem out loud—but not in front of the whole class. Or he could show his work on some of the problems but not all of them. Suggestions in the plan may include:

Changes to the physical environment, to the way information is taught or presented, to your child's routine or events that happen before the inappropriate behavior & to the consequences for a behavior.

Teaching different, more appropriate behaviors that serve the same purpose (such as asking for help or taking a break when frustrated with math). Before putting a plan into place, the group has to make sure your child understands the expectations. They have to be sure he can control the inappropriate behavior and is motivated to change. This is where information from a comprehensive evaluation is helpful.

The Role of Parents in a Functional Assessment (3)

Knowing that your child's behavior is causing problems can bring up many feelings. But the team should try to work together to find solutions & not to place blame. Tell the team what you're seeing at home. This is an important piece of this process. It can show the similarities and differences between your child at home and at school. You can keep track of your child's behavior using an ABC approach or by **keeping a journal**. Taking notes can make it easier to see patterns in your child's behavior.

A functional assessment may not provide an immediate solution to your child's behavior issues. But it can give a more complete picture of your child's struggles. Then you (parents) and the school can work together to take the next steps to help your child.

What is assessment for learning?

Assessment for learning is best described as a **process** by which assessment information is used by teachers to **adjust their**

teaching strategies, and by students to **adjust their learning strategies.** Assessment, teaching, and learning are inextricably linked, as each informs the others. Assessment is a powerful process that can either **optimize or inhibit learning**, depending on how it's applied.

For teachers: Assessment for learning helps teachers gather information to:

plan and modify teaching and learning programs for individual students, groups of students, and the class as a whole, pinpoint **students' strengths** so that both teachers and students can build on them, identify students' **learning needs** in a clear and constructive way so they can be addressed & involve **parents**, **families**, in their children's learning.

For students: Assessment for learning provides students with **information and guidance** so they can plan and manage the next steps in their learning. Also uses information to lead from what has been learned to what needs to be learned next.

Describing assessment for learning (4): Assessment for learning should use a range of approaches. These may include: day-to-day activities, such as learning conversations, a simple mental note taken by the teacher during observation, **student self and peer assessments**, a detailed analysis of a student's work, assessment tools, which may be written items, structured questions, or items teachers make up themselves.

What matters most is not so much the form of the assessment, but how the information gathered is used to improve teaching and learning.

What is Assessment for Learning?

Assessment Reform Group (UK 2002)

Assessment for Learning is the process of seeking and interpreting evidence for use by learners and their teachers to decide where the learners are in their learning, where they need to go and how best to get there.

Assessment for Learning is also known as **Formative assessment** (5)

Difference between formative and summative assessmentActivities associated with **summative assessment** (Assessment of Learning) result in an evaluation of student achievement - for example, allocation to a level or standard or allocation of a letter or numerical grade, which might later appear in a report.

Activities associated with **formative assessment** (Assessment *for* Learning) do not result in an evaluation. Information about what a student knows, understands and is able to do is used by both the teacher and the learner to determine where learners are in their learning and how to achieve learning goals.

Assessment for Learning Strategies are as follows (6)

Research has identified a number of Classroom strategies that are particularly effective in promoting **Formative assessment** practice.

· Strategic use of questioning

Questioning is used not only as a pedagogical tool but also as a deliberate way for the teacher to find out what students know, understand and are able to do.

· Effective teacher feedback

Effective teacher feedback focuses on established success criteria and tells the students what they have achieved and where they need to improve. Importantly, the feedback provides specific suggestions about how that improvement might be achieved.

Peer feedback

Peer feedback occurs when a student uses established success criteria to tell another student what they have achieved and where

improvement is necessary. Again, the feedback provides specific suggestions to help achieve improvement.

Student self-assessment

Student self-assessment encourages students to take responsibility for their own learning. It incorporates selfmonitoring, self-assessment and self-evaluation.

Formative use of summative assessment

Summative assessment is a necessary aspect of education. Formative use can be made of summative assessment, both before and after the assessment event.

Click on the names of the strategies to access the professional learning modules.

The present study was undertaken to assess the Behavioural Characteristics (BC) and Learning Strategies (LS) of Secondary School Students in Thane city. For studying the above aspects 08 points questionnaire & 20 points questionnaire was used as parameter for assessing BC and LS of the students respectively.

Total **100 students** of a Secondary school located in Thane city were enrolled in the study. We enrolled **70 students** from **7**th grade & 21 from 8th grade. Thus total of 91 students of the school were enrolled in the study as 09 students didn't fill up the questionnaire. There were 02 divisions for each Grade / Std. that was considered i.e. 7A & 7B for 7th grade and 8A & 8B for 8th grade.

These **81 students** were distributed the **Questionnaire for BC** and LS assessment having respective points for evaluation under each sub-heading. They were given 3 - 4 days period to go through & solve the questions & submit it to their school Principal from whom it was collected by us. Results were tabulated separately for 7th Std. & 8th Std. students due to variation in the number of students enrolled in each grade.

Questionnaire for the study:

Questionnaire for assessment of Behavioral Characteristics (BC) with 08 Questions

- Q.1) Arriving late in school
- Q.2) Unjustified absenteeism
- Q.3) Skipping the class
- Q.4) Violating the dress code
- Q.5) Disturbing the class
- Q.6) Verbal abuse / Physical injury other students/staff
- Q.7) Alcohol/smoking use
- Q.8) Illegal drug use.

Questionnaire for assessment of Learning Strategies (LS) with 20 Questions

- 1) I study since I am interested in learning
- 2) My academic performance depends on my capacity & skills
- 3) My academic performance depends on my teachers & their teaching ability
- 4) My state of mind is positive and I feel good to while learning
- 5) I usually get nervous when I have an exam
- 6) I am usually relaxed & peaceful during the exams
- 7) I think of the consequences of failing in an exam
- 8) I only study before the exams
- 9) I consider that it is very important to understand the contents & concepts of the course subject
- 10) I invest more time and effort in the subjects
- 11) I get on well with my classmates
- 12) I pick up suitable classmates for teamwork / study
- 13) I always try to learn new techniques, skills & procedures to improve my performance
- 14) I normally study in a place where it is possible to concentrate on
- 15) I create simple graphs, figures or tables to organize the study

materials

- 16) I usually summarize the material I have to study
- 17) I memorize things even though I don't understand them
- 18) I use the key words I've learnt and studied to remember the contents related to them
- 19) I find that figures or summaries done in my own words help me retain the study contents better
- 20) I use whatever I've learned in everyday situations

RESULTS

Results of the Behavioral Characteristics (BC) of 7th grade grade / Std. school students

Total result of 7th grade school students (n = 70) for Behavioral Characteristics (BC)

Question No.	Never	Monthly	Weekly	Daily
01	54	15	1	
02	66	04		
03	70			
04	67	01		02
05	53	11	05	01
06	35	24	09	02
07	69			

One student of 7-B class has **NOT ATTEMPTED** Q.7

Total Result of 7th grade students for Learning Strategies (LS) n = 70

Q.No.	Disagr ee	undeci ded	Agree	Q.No.	Disagr ee	undeci ded	Agree
01	04	05	61	11	03	13	52
02	03	03	64	12	06	26	37
03	46	08	16	13		05	65
04	01	10	59	14	02	10	56
05	17	30	22	15	12	24	34
06	23	32	14	16	09	10	49
07	51	08	11	17	45	10	14
08	53	08	09	18	04	06	59
09	01	01	68	19	01	10	57
10	02	12	56	20	07	18	44

One student of 7- B class has NOT ATTEMPTED Q.5, Q. Q.11, Q.14 & Q.20

Total Results of 8th grade school students (n == 21) for **Behavioral Characteristics (BC)**

Question No.	Never	Monthly	Weekly	Daily	
01	19	02			
02	18	12			
03	21				
04	18	01	02	02	
05	20	01			
06	19	02			
07	20				

Two student of 8- B class have **NOT ATTEMPTED** Q.2 & Q.7 respectively

Total Result of 8th grade students for Learning Strategies (LS) n = 21

Q.No.	Disagr ee	undeci ded	Agree	Q.No.	Disagr ee	undeci ded	Agree
01		06	15	11			21
02	03	01	17	12	09	03	09
03	11	06	04	13		01	20
04		03	18	14	03	01	17
05	13	04	04	15	06	05	10
06	03	05	13	16	04		17
07	19	01	01	17	14	03	04
08	16	03	02	18			20
09	01		20	19	02	03	16
10	01	05	15	20	02		19

One student of 8-B class have **NOT ATTEMPTED** Q.18.

DISCUSSION

A) In the process of assessment of Behavioral Characteristics (BC) in 7th Std./ grade students (n = 70) it was seen that 54 / 70 students (77.20 %) didn't arrive late in school, 15 / 70 arrived late once / month frequency & only one student arrived late once every weekly.

66 / 70 (94.28 %) didn't report any unjustified absenteeism while once / month frequency of the same was observed in **04 /70** students.

Good to see that **NO student** skipped the class. **67 / 70** (95.70 %) never violated the dress code but **01** student violated every monthly & **02** students violated dress code every weekly frequency. It was noted that **53 / 70** (75. 70%) **NEVER** disturbed the class, **11/70** (**15.70%**), **05 / 70** & **01 / 70** disturbed it once / monthly, once every weekly & on daily basis respectively.

35 / 70 (50 %) were **NOT** indulged in verbal abuse / physical injury to other students or staff while **24 / 70 (34.28%), 09 / 70** & **02 / 70** students were involved every monthly, weekly & daily basis respectively.

Except for **one student** who didn't attempt the question, **69 / 70** (98.7%) students were **NOT** using or subjected to alcohol / smoking habit. Also **NO student** used any illegal drug was certainly a positive aspect observed.

B) Assessment of Behavioral Characteristics (BC) of 21 students in 8th Std./ Grade, it was seen that 19 /21 students (90.47 %) didn't arrive late in school, 02 / 21 arrived late once / weekly frequency.

18 / 21 (85.72 %) didn't report any unjustified absenteeism while once / month frequency of the same was observed in **12 / 21** students. **One** student didn't attempt the same.

Good to see that $\bf NO$ student skipped the class. This was similar to class $\bf 7^{th}$ grade students.

18 / 21 (85.72 %) never violated the dress code but **01** student violated every monthly & **02** students violated dress code every weekly & daily frequency respectively.

It was noted that **20 / 21** (95.23 %) **never** disturbed the class, **01/21** disturbed it once/monthly.

19 / 21 (90.47 %) were **NOT** indulged in verbal abuse / physical injury to other students or staff while **02 / 21** students were involved once every monthly basis.

Except for **one** student who didn't attempt the question, **20 / 21 (95.23%)** students were **NOT** using or subjected to alcohol / smoking habit. Also **NO student** (all 21Students) used any illegal drug.

C) Assessment of Learning Strategies (LS) for 70 students of 7th Std. / Grade, it was observed that 61 / 70 (87.2%) students reported that they studied since they were interested in Learning. 64 (91.45%) said that their academic performance was dependent on their own capacity & skills while 46 (65.7%) students quoted that it was **not dependent** on their teacher's ability & skill.

59 / **70** (**84.28%**) students agreed that their state of mind is positive & they feel good while learning.

 $30\,/\,70\,(43\,\%)$ and $32\,/\,70\,(46\,\%)$ students were undecided regards whether they were nervous or/& relaxed & peaceful during their exam respectively.

51(72.8%) students however did disagree regards their consequence of failing in exams and **53 (75.7%)** disagreed that they study only during / prior to the exam.

68 / **70 (97.1%)** considered it important to understand the contents & concepts of the study while **56** students agreed to spend more time & efforts in studying difficult course.

52 / 70 (74.2%) were able to get along well with their class mates & **37 (52.85%)** picked up suitable classmate of their own for team work/study.

65 (92.8%) students showed inclination to learn new skills, techniques & procedures for improving their performance while **56 (80%)** used a suitable place to study to concentrate.

34 (48.5%) created graphs, tables & figures to organize their study matter & **49 (70%)** summarized their study content.

49 / 70 (70%) disagree to memorizing things simply without understanding.

59 (84.2%) students found using keywords a better way to remember things while **57 (81.4%)** reported use of summary & figures easy to retain the study contents.

44 (62.85%) applied the things they have learned in day to day situations & **18** were left undecided for the same.

D) Pertaining to the Learning Strategies (LS) for 21 students of 8^{th} Std. it was seen that 15 / 21 (71.43%) students agreed that they study because they were interested in Learning.

17 / 21 (80.9%) said that their academic performance was dependant on their own capacity and skills while 11 / 21(52.38%) quoted that it was NOT dependent on their teacher's ability & skill. 18 (85.72%) students agreed that their state of mind is positive & they feel good while learning and 03 were not able to decide on it. 13 (62%) students disagree regards getting nervous during exam & 13 (62%) agreed that they were relaxed & peaceful during their exam.

19 (90.45%) students however disagree regarding their consequence of failing in the exams while **16** (**76.2%**) disagreed that they study only during / prior to the exam.

20 (95.23%) students considered it important to understand the contents & concepts of the study while 15 agreed spending more time & efforts in studying difficult course subjects.

All 21 (100%) students agreed getting on well with their class mates & 09 / 21 picked up suitable classmate for team work of their own while **09** disagreed to it & **03** were left undecided.

20 / 21(95.23%) students also were inclined to learn new skills, techniques & procedures for improving their performance while 17 (80.95%) used a suitable place to study to concentrate properly leaving 03 in disagreement over the same point.

10 / 21 (47.62%) used graphs, tables & figures to organize their matter while **06** disagreed & **05** were undecided about the same. 17 / 21(80.95%) students summarized their study matter.

14 (66.66%) students didn't simply memorize things simply without understanding them, 20 (95.23%) students found keywords better to remember the study things while 16 (found use of summary & figures help to retain the study contents with ease.

19 (90.45%) students applied the things they have learned in day to day situations & **02** disagreed over the same point.

Conclusion

I) From the study pertaining to the Behavioral Characteristics (BC) of the secondary school students, it was evident that 77.20 % & 90.45% students of 7th & 8th grade respectively didn't arrive late in school indicating they were very punctual regards time to school.

94.28 % & **85.72**% students of 7th & 8th Std. didn't report any unjustified absenteeism indicating that they were very regular in their school attendance.

NO student of either grade did skip the class indicating they were very inclined to learning.

95.7 % of 7th grade & 85.72% of students of 8th grade didn't violate their dress code thus revealing that they were disciplined. **75.7%** of 7th Std. were not responsible for disturbing their class however 15.70% did disturb it. This was significant compared to **97.23%** of 8th Std. who **didn't disturb** their classes compared to 7th grade students. **Disciplinary action** should be taken by the school regards those causing **disturbance in the classes**. Even their parents should be informed regards their behavior in school.

Similar to the above feature it was observed for 7th grade students only **50%** were **NOT** involved in verbal abuse / physical injury in the school while worrisome to see that 34.28% were involved. This should be **noted by their class in-charge** / school principal & **adequate action** should be taken against those involved in such notorious activities. Also proper cause & reasoning to be obtained regards such type of **behavior**.

Except for those students who didn't attempt the questionnaire, **good feature** to see that **NO student** of the school was involved in using alcohol, smoking & illegal drugs.

II) From the study pertaining to the Learning Strategies (LS) of the secondary school students it was observed that 87.2% & **71.43%** of students of 7th & 8th grade were **interested in learning** & so did they study.

Surprising to see that **91.5%** & **81%** of 7th & 8th grade students

respectively reported that their academic performance was dependent on their own skills & ability while 65 % & 52.34% of 7th & 8th grade respectively said that it was **NOT** due to **teacher's** skills & ability. Teacher's should take note of this feature & provide reasoning for this type of pattern so reflected & take proper measures regards this point.

Good to see that almost equal percentage of students of either grade agreed that their state of mind is positive & they feel good while learning.

43% & **46%** of 7th grade however were left undecided as to if they were nervous & /or relaxed & peaceful during the exams. Also 62% of 8th grade were left undecided for the above features thus reflecting more of **indecisive potential** of students compared to 7th Std. This should be taken care by school teachers by proper interaction with the students.

Most of the students of either Std. were **NOT** bothered about the outcome of failing in exams thus reflecting either their Confidence of passing in exams or perhaps Overconfidence which to be analyzed on their performance so obtained.

Positive feature noted was that most of the students of either class were **regular in studies** since they reported of **NOT** studying only during or prior to exams. Similarly most of them (more than 95%) in both grades considered important to understand **concepts & contents** of the subjects.

Students of 8th grade were more **friendly with their class mates** than 7th grade.(**100% v/s 74%** respectively). Moreover it was also noted that > 90 % students of either grade were inclined to **improve their performance** by using better skills, techniques & procedures and >80% students of either Std selected better place to study to concentrate on work.

Use of figures / graphs / tables to organize the study material should be insisted by the school teachers as less than 50% students of either grade reported its use while studying.

It was a **good finding** that majority of students of both grades **summarized** their study material. Also good to see that majority of them studied the subject after understanding & didn't simply **memorize** the study matter. Most of the students of both grades also found **use of key words helpful** to remember the contents as also use of figures & summaries of the respective subject.

A **very good point** noticed was that most of students applied the things in day to day situation that they have learned.

The school was thus found to inculcate **good habits & manners** in Secondary students of 7th & 8th grades and had good environment & culture in their classes. The school also had adequate number of students in respective classes due to which it is easy for the teachers to concentrate on individual student & give personal attention.

Few flaws so noticed in behavior profile & learning strategies of their students could be easily resolved to by understanding the cause for the problems and taking proper action against it. **Involving & informing parents** in this regard will certainly make remarkable progress in maintaining discipline & creating good students.

Thus role of a school teacher to develop good students is really very admiring which is so very important to create & maintain good standards for the school.

I **thank** the School Principal & the staff for granting us permission to go ahead with our study & co-operating with us throughout the process. Finally I do ${\bf acknowledge}$ the students for participating in our study & giving us their valuable time, thought & efforts in solving the questionnaire.

References

- www.parentcenterhub.org/repository/behavassess (1)
- www.smartkidswithld.org/...behaviors/functional (2)
- www.resourcenter.net/images/snrs/files/sojnr_articles2/Vol09Num04Art05.html by E Cormier Related articles. (3)
- 22 Easy Formative Assessment Techniques for Measuring Student Learning By | Kathy Dyer | July 12,2013, https://www.nwea.org/blog/2013/22-easyassessment-techniques-for-measuring-studen learning/#sthash.dboZ9kFr.dpuf
- https://www.nwea.org/blog/2013/22-easy-formative-assessment-techniques-for-measuring student-learning/#sthash.dbo29kFr.dpuf http://www.itslearning.net/assessment-for-learning-5-key-strategies-for-higher-student-achievement#sthash.tNQnLtEc.dpuf (5)
- (6)