HIGH AND LOW ACHIEVERS’ CLASSROOM INTERACTION PATTERNS IN AN UPPER PRIMARY CLASSROOM

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ABSTRACT

This study sought to examine if students’ achievement level influenced their interaction levels in the classroom. It used qualitative data gathering methods of semi-participant observations, field notes and semi-structured interviews to describe and investigate the nature and frequency of the interaction patterns of three high and three low achieving students in one upper primary classroom. Significant factors influencing high and low achievers’ willingness to initiate interactions in the classroom were also investigated.

Students were selected to participate in this study using a purposive sampling method where test scores, class performances and teacher judgement were used to identify students possessing the highest and lowest levels of achievement in the areas of literacy and numeracy. Once selected, participants were observed extensively interacting with their teacher and peers in the classroom. Data gathered was coded according to themes generated during the study and from relevant literature reviewed in the field.

Findings revealed that the high achieving informants initiated more interactions than the low achievers. Such a finding differed when the teacher initiated interactions with students. When the teacher called randomly on students, the inequity between the two achievement levels balanced out and the low achievers, due to the teacher’s intervention, became more active, though still unwilling participators. The nature of the high and low achievers’ interactions in the study also varied. The high achievers were found to initiate interactions to volunteer answers, whereas one of the low achievers interacted purely for the purpose of help-seeking.

Significant factors influencing the interaction patterns of the study’s high and low achievers were being uncertain of the answer, just not wanting to be involved, getting teased by other students, feeling embarrassed, concerned about being wrong and lack of enjoyment for a particular subject. These findings showed that no one factor alone influenced high or low achievers’ interaction patterns. Past and present successes and relationships in classrooms were seen as being responsible for students’ willingness to initiate interactions in this classroom.
INTRODUCTION

This study was undertaken to identify the interaction patterns of a small group of high and low achieving students from one upper primary classroom in a western suburbs school. The study focussed on the nature and frequency of those interactions that occurred during regular classroom activities that were specifically initiated by high and low achieving students towards their teacher and peers in the classroom. The problem this research sought to answer was:

‘Does students’ achievement level influence the nature and frequency of interactions with their teacher and peers?’

To assist in addressing the research problem, the following two research questions were formed to guide the study.

- **RESEARCH QUESTIONS**
  - What effect does achievement level have on the nature and frequency of student-initiated interactions in the classroom? and
  - What are the factors that influence the interaction patterns of high and low achieving students?

BACKGROUND TO THE STUDY

Classrooms are extremely busy environments. In a single day classroom teachers could find themselves engaged in more than a thousand inter-personal exchanges with their students (Jackson, 1968, cited in Good & Brophy, 1994, p.26). With the number of such interactions being so great and the demand being so intense, it is not surprising to know that most teachers, regardless of their experience, have difficulty remembering all the interactions that take place and in particular which students are involved in the most number of those exchanges. This study aims to make explicit to one teacher the nature and frequency of the interactions initiated by a small representation of students in his classroom. The findings from this study will illustrate to the teacher involved which student(s) dominated the interactions in his classroom and reasons why.

Educationalists believe that interactions between students and teacher are fundamental to the learning process. Jones and Gerig have suggested there is evidence to strengthen the view that ‘verbally active’ students are high achievers (1994, p.169). During the past twenty-five years, increasing research has focussed on the influence that student-teacher interactions have had on the cognitive development of students (Jones & Gerig, 1994, p.170). Student involvement in class discussions was also deemed to be a major component of effective instruction – hence learning, with other benefits for students being considerable (Jones & Gerig, 1994, p.170).

Past research into classroom interaction has revealed that students are the ones that tend to control the level of classroom interactions more than teachers (Good & Brophy, 1994, p.30). The reason for this is because some students are more active in the learning process and participate more willingly than others. With not all students participating equally in the interaction process, teachers are confronted with the challenge of trying to identify which students dominate the interactions in their classroom, why they do and what can be done to encourage the non-participators to interact in a meaningful way. This study therefore aims to show which students interact most frequently in one upper primary classroom, why they do, what their interactions look and sound like and finally what factors influence their willingness to initiate classroom interactions.
For the purpose of this research, the interactions being focussed on are those taking place between high and low achieving students, their teacher and peers in the classroom, commonly referred to as ‘classroom interaction’.

• **WHAT IS INTERACTION?**

Interaction is the process referring to ‘face-to-face’ action. It can be either verbal, channelled through written or spoken words, or non-verbal, channelled through touch, proximity, eye-contact, facial expressions, gesturing etc (Robinson, 1994, p.7).

• **THE NATURE OF STUDENT-TEACHER INTERACTIONS**

Students and teachers interact with one another for a number of different reasons and on a continued basis throughout the school day. As there is usually only one teacher to respond to the needs of a number of students, their time and assistance is in great demand.

Teachers are not expected to remember all the contacts they encounter with students, but do need to be able to recall certain information (*eg: the five students in the back row who did not answer a question during the lesson, or, the girl who spent most of the day staring at a blank page etc*) (Good & Brophy, 1994, p.27). The reason for needing to recall such information is that some students initiate less teacher contact and attention than others and without teachers making ‘mental notes’ about such students, they go unnoticed and become low-participants in classroom tasks and passive in the learning process.

• **STUDENTS’ SELF-CONCEPTIONS OF THEIR ACADEMIC STANDING IN THE CLASSROOM**

Students are active perceivers and mediators of classroom events. There is evidence from past studies supporting the view that students construct detailed views of the ability and behaviours of themselves and their peers (Blumenfeld, Pintrich & Hamilton, 1986, Rohrkemper, 1985 and Stipek & Tannatt, 1984, cited in Mitman & Lash, 1988, p.55-56).

That perception of classroom events exists among most students, both high and low achievers and is particularly prevalent amongst students in the upper primary years of school, who have developed, through their schooling experiences, an insight into teacher expectations and the academic capabilities of their peers. Such a view is supported by Wittrock, who believes children, as a result of their schooling, learn quickly to rate themselves and their peers as high or low achievers (cited in Wittrock, 1986, p.300).

Students themselves are ‘classroom observers’, they are aware to a great extent of their own academic standing in the classroom, as well as that of others. Some examples of strategies students use to evaluate their own academic standing include *the tasks that they are given, grouping strategies implemented in the classroom (eg: ability grouping), teacher feedback and evaluation information regarding ability, the responsibilities that teachers provide students with and the quality of teacher-student relationships* (Taken from Marshall & Weinstein, 1984, cited in Mitman & Lash, 1988, p.57).

Whilst teachers’ behaviours and practices in the classroom do influence students self-conceptions of their academic standing, the other significant group that plays a part is the role of peers.
A study by Filby and Barnett in 1982 (cited in Wittrock, 1986, p.300) found that elementary school children were able to understand and evaluate one another’s reading performance in class simply by listening to others read aloud. Children in that study were able to detect, by listening, who the ‘better readers’ were and hence how they measured up in comparison. Such a strategy supports the view that students are active perceivers in classrooms and that they use the performances of others (their peers) to judge themselves.

Further supporting Filby and Barnett’s findings was research done by Susan Harter in the late 1980’s where she found that children, within regular classroom settings, were able to ‘rank order’, with great precision, the competence level of every member of their class (cited in Baumeister, 1993, p.94).

According to Harter (cited in Baumeister, 1993, p.94), beginning in middle childhood, one adopts the cultural preoccupation with how individuals are different from one another – with competition, with who is the ‘best’ and with who ascends to the top etc. How one measures up to one’s peers is of tremendous interest in the classroom, particularly among children entering into the middle phase of childhood.

A final finding on students’ self-conceptions of their academic standing in the classroom is that many students, particularly younger ones, tend to overestimate their academic ability (Mitman & Lash, 1988, p.56).

A considerable number of studies have found that students’ perceptions are not consistent with measures of their actual performances until the upper primary years of school (Blumenfeld, Pintrich, Meece & Wessels, 1982, cited in Mitman & Lash, 1988, p.56).

The findings from those studies support the belief that although most students are ‘classroom observers’, an understanding of those observations and their own academic standing are not fully achieved until the upper primary years and the entering into adolescence. For those very reasons, this research focuses specifically on high and low achievers in their final stages of primary school.

**RESEARCH METHODOLOGY**

As the aims of the study were to investigate the interaction patterns of a small group of high and low achieving students, a qualitative methodology was implemented so that detailed descriptions of students’ behaviours and attitudes could be collected, recorded and analysed. This study aimed not only to describe the nature of interactions that took place in the classroom among three high and three low achievers, but also to investigate how often they occurred, why they occurred and what factors influenced their frequency. This study was therefore both descriptive and investigative in its nature.

- **RATIONALE FOR THE USE OF SUCH A RESEARCH METHODOLOGY**

To be able to address the research problem of *Does students’ achievement level influence the nature and frequency of classroom interactions*, two questions required answering. The questions were ‘what effect does achievement level have on the nature and frequency of student-initiated interactions in the classroom?’ and ‘what are the factors that influence the interaction patterns of high and low achieving students?’
To answer the two research questions, naturalistic inquiry (a characteristic of qualitative methodology) was implemented because of its unobtrusiveness and accuracy in presenting to others the real-world events and experiences that unfold in a particular environment (Patton, 1990, p.41).

**SELECTION OF RESEARCH SITE**

The study sought a small group of upper primary students in their final stages of Primary School who represented both ends of the achievement continuum (i.e.: high and low achievers). Providing the school could fulfil this criterion, variables such as location and socioeconomic status of the area were not factors influencing the selection of the research site. The only set criteria the school was required to meet was that they needed to have an upper primary classroom consisting of mixed ability students, three of whom were high achieving and three of whom were low achieving. The other important criteria was that the school needed to have a classroom teacher who was willing to provide access to their teaching environment for a series of observations and interviews to take place over the duration of one month, commencing at the beginning of term three.

**PURPOSIVE SAMPLING**

Only a narrow level of student achievement was the focus of this study, consisting of students who specifically possessed high levels and low levels of achievement in the two key learning areas of literacy and numeracy. To ensure the participants fitted such a criteria, ‘purposive sampling’ was implemented where-by the teacher was given the responsibility of judging and selecting students from his class whom he considered as possessing either a high or low level of achievement in the two areas of study (Fraenkel & Wallen, 1996, p.100). Students were therefore selected as research participants with a purpose in mind.

To assist the teacher in making such judgements, students’ recent performances in literacy and numeracy tasks were consulted. In the area of literacy, students’ spelling, reading, oral and written language achievements were recorded and consulted. For numeracy, performances in three recent Maths tests, in conjunction with the teacher’s knowledge of students’ achievement in different areas of Mathematics were referred to.

**The key informants:**

Using the criteria just described, the teacher ‘hand-picked’ six students who were the key informants for the study. The six students were made up of four girls and two boys. Of the four girls, two were year six students and the other two year sevens. The remaining two informants were year sevens boys. The three high achieving students researched were Lucy, Madeline and Anthony, whilst the three low achieving students were Jacinta, Charlotte and Joel.

**DATA GATHERING TECHNIQUES**

The data gathering techniques that were used in the study included *observation, field notes and interviews*. Observation was the main data gathering technique used in the study.

Observations occurred continually and spontaneously throughout classroom visits. The majority of observations were recorded during seatwork and collaborative learning activities. Observations occurred during a variety of lessons and at different times of the day. Most of the lessons that were observed were in the classroom under the supervision of the
classroom teacher, whilst a few opportunities arose for observations to occur during ‘NITT’ classes with other teachers in different environments (ie: Physical Education, Music and Dance).

The only set observations that occurred during the data collection process took place over a four-day-period where two structured observational proformas were used to record the frequency of both ‘student-initiated’ and ‘teacher-initiated’ interactions.

Field notes in the study comprised of descriptions of individual interactions that were student initiated towards the teacher, or towards other students in the classroom. Notes were taken in the classroom and consisted of written accounts of observations and records of informants’ achievement scores in literacy and numeracy tasks that were recorded, with permission, from the teacher’s assessment folder.

The technique of interviewing occurred in the later stages of the data collection process and was used primarily as a method for checking the validity of data collected from observations (Fraenkel & Wallen, 1996, p.447).

The interviews conducted in the study were of a ‘semi-structured’ nature. The reason for using such an interview style was that they allowed for a series of questions to be asked that were designed to elicit specific answers on the part of the respondents. The ‘semi-structured’ nature enabled information to be obtained that could later be compared and contrasted (Fraenkel & Wallen, 1996, p.447).

To support the interviewing process, interviews were audiotaped and transcribed to allow for a more permanent and accurate record of the data to be kept. Each interview began by asking the informants to brainstorm all the things they thought they were good at doing and all the things they thought they were not so good at doing. Informants were encouraged to think about school tasks and activities outside of school so that their academic and social strengths and weaknesses could be included. For the purpose of the tape-recorder, informants were then asked to read aloud their brainstorm ideas from both lists.

The remainder of the interview process was more traditional consisting of a series of open-ended questions relating to issues such as how they felt about participating in class, why they did or did not participate in class, how they felt about asking for help, who they felt most comfortable seeking help from, what they did when confronted with difficult tasks, what they liked/disliked about school, whether they preferred working independently or with other people, were they a confident and positive person and what they felt their future held. The questions were all open-ended in their format and allowed informants to share as much, or as little information as they felt comfortable with.

Checking for representativeness of data/sources:

The study’s informants were carefully selected, being judged specifically on their achievement levels in literacy and numeracy. To ensure a representation of high and low achievers was a part of the sample, more than one high and low achiever was selected to participate in the study. Informants’ interaction patterns were observed over a number of visits, during various lessons and at different times of the day. Such planning allowed for a wider representation of interaction patterns to be observed, showing any possible variations that could have existed under different conditions.

• DATA REDUCTION AND ANALYSIS
To assist in formulating comparisons in the data, Fleet and Cambourne’s process of ‘coding naturalistic data’ was implemented.

This process takes data in its ‘raw form’ and ‘chops it up’ in a systematic manner to produce more manageable ‘bits’ that are then coded accordingly. The main purpose of coding is to overcome the complexity of the data collected by reducing it into simplified records and then to rearrange the records according to some rules of order (Fleet & Cambourne, cited in Wiseman, 1993, p.3.171 & 3.174).

Once the data had been collected, the audiotaped interviews were then replayed numerous times until accurate written transcripts could be produced. Once transcripts had been typed out, multiple copies were made. Informants’ transcripts were read and then re-read in an attempt to identify significant issues surrounding the nature and frequency of high and low achievers’ interaction patterns.

Key words and meanings were used to identify significant issues from the observations and interview transcripts and these were then considered as being major categories for organising the remaining data into. The problem of having too many categories became evident in the early stages and when some of the data showed strong links across categories, it meant having to reduce and re-name the categories so that they could encompass more information, that meant re-organising much of the data again.

Eventually all of the data was reduced into five major categories, each consisting of smaller sub-categories. The major categories formed were interaction patterns, characteristics of high achievers, characteristics of low achievers, attitudes towards help-seeking and feelings about classroom interaction. Data from the smaller sub-categories was then focussed on and that was organised into table format for comparisons to be made between high and low achievers’ interaction patterns.

FINDINGS

• FREQUENCY OF INTERACTIONS

Over a four-day period of classroom observations, the number of times the informants attempted to initiate an interaction with their classroom teacher during seatwork was recorded. The number of attempted interactions that transpired between the three high achieving informants was added together to form a total for that achievement level, the same was done for the three low achieving informants. The results are presented in table 1.

<table>
<thead>
<tr>
<th>Achievement level</th>
<th>The number of attempted interactions that were initiated by students</th>
</tr>
</thead>
<tbody>
<tr>
<td>High achievers</td>
<td>18</td>
</tr>
<tr>
<td>Low achievers</td>
<td>3</td>
</tr>
</tbody>
</table>

Table 1: Frequency of student-initiated interactions
Apart from the frequency of student-initiated interactions being recorded, as was the frequency of teacher-initiated interactions and these identified the number of times the teacher initiated an interaction with a high or low achieving informant during seatwork. Just as above, the results were accumulated over a four-day observation period. The frequency of the interactions outlined below in table 2 resulted in an interaction that was controlled and acknowledged by the teacher.

**Table 2: Frequency of teacher-initiated interactions**

<table>
<thead>
<tr>
<th>Achievement level</th>
<th>The number of acknowledged interactions that were initiated by the teacher</th>
</tr>
</thead>
<tbody>
<tr>
<td>High achievers</td>
<td>13</td>
</tr>
<tr>
<td>Low achievers</td>
<td>15</td>
</tr>
</tbody>
</table>

From studying the frequency of the informants’ interaction patterns over a four-day period, an interesting theory emerged. Firstly, when looking at the number of attempted student-initiated interactions (table 1), the findings show that the high achievers had a total of eighteen attempted interactions with the teacher in comparison to only three attempts by the low achievers. Such a comparison indicates a large discrepancy in the number of attempted interactions between the two achievement levels with the high achieving informants having six times as many attempted interactions, or fifteen more, than what the low achievers did. This finding shows that when the students are the source of initiating interactions with the teacher, high achievers are the ones to dominate.

A different trend is evident when studying the frequency of teacher-initiated interactions. Unlike the large discrepancy in the previous figures, the number of teacher-initiated interactions between the high and low achieving informants is much closer with the difference in frequency between the achievement levels being only two. The teacher initiated thirteen interactions with the high achieving informants in comparison to fifteen interactions with the low achieving informants. With the difference in the frequency of these figures being only two and interestingly in favour of the low achievers, the following conclusion can be reached.

Using information from the above findings, the conclusion can be drawn that when students are the ones attempting to control interactions with the teacher, high achievers are the group to dominate, but when the teacher initiates interactions and controls whom he lets interact, the inequity balances up and students from both achievement levels are encouraged and pursued to be involved. The findings from the frequency of teacher-initiated interactions show that the teacher in this study was very consistent in the number of interactions he initiated with students of both achievement levels.

- **NATURE OF INTERACTIONS**

Table 3 indicates the ways that the key informants’ initiated their interactions in the classroom and the purposes behind them.
<table>
<thead>
<tr>
<th>Informant’s name</th>
<th>Achievement level</th>
<th>How the interaction was initiated</th>
<th>The purpose of the interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charlotte</td>
<td>Low</td>
<td>Put up her hand</td>
<td>To check with the teacher she was doing her work right</td>
</tr>
<tr>
<td>Joel</td>
<td>Low</td>
<td>Got up out of his seat to see the teacher</td>
<td>To ask for help</td>
</tr>
<tr>
<td>Madeline</td>
<td>High</td>
<td>Put up her hand</td>
<td>To volunteer an answer during ‘Oral Maths’</td>
</tr>
<tr>
<td>Anthony</td>
<td>High</td>
<td>Put up his hand</td>
<td>To ask a question of his own related to the lesson</td>
</tr>
<tr>
<td>Lucy</td>
<td>High</td>
<td>Put up her hand</td>
<td>To offer advice to the class during a Maths lesson on an easy way that she uses on how to multiply fractions</td>
</tr>
<tr>
<td>Joel</td>
<td>Low</td>
<td>Gestured by waving his hands and calling out the teacher’s name</td>
<td>To ask for help</td>
</tr>
<tr>
<td>Joel</td>
<td>Low</td>
<td>Put up his hand whilst calling out the teacher’s name</td>
<td>To ask for help</td>
</tr>
<tr>
<td>Joel</td>
<td>Low</td>
<td>Got up out of his seat to see the teacher</td>
<td>To ask for help</td>
</tr>
<tr>
<td>Joel</td>
<td>Low</td>
<td>Put up her hand</td>
<td>To volunteer an answer to a question during Spelling</td>
</tr>
</tbody>
</table>
The table of findings shows that there are four different methods that the informants used to initiate their interactions with the teacher. The different methods include putting up their hand to attract the teacher’s attention, getting up out of their seat to go and see the teacher, putting up their hand and calling out the teacher's name simultaneously and gesturing to the teacher by waving their hands and calling out the teacher's name.

The most common of the four methods implemented is putting up their hand. All three high achieving informants used this method, as did one of the low achieving informants (Charlotte). Joel’s method of gesturing by waving his hands and calling out to the teacher was interesting to observe. The reasoning behind it was not only to attract the teacher’s attention to him, but more significantly to indicate, via his hand-waving, that he wanted the teacher to come over to his table. Joel did not feel comfortable initiating his interaction with the teacher publicly through the traditional method of putting up his hand and having to interact aloud in front of a large audience.

The table of findings also shows the purposes of the informants’ interactions. There are five different purposes the informants’ displayed and they include to check with the teacher to see the correctness of their work, to ask the teacher for help, to volunteer an answer to a teacher-directed question, to ask a question of their own and finally to offer advice to other students in the class.

Based on the information from the above findings, no significant conclusion can be made as to the method or purpose of the interactions initiated by a specific achievement level. The nature of student-initiated interactions varied considerably with the only significant conclusion being that the high achieving informants interacted using a traditional and accepted method of putting up their hand and waiting to be called on, with no obvious fear of interacting publicly, whereas the low achieving informants, Joel particularly, did not use the putting up his hand method, instead implementing actions that resulted in a more active interaction with the teacher where a more private response was sought.

**• REASONS WHY HIGH AND LOW ACHIEVERS AVOID INITIATING INTERACTIONS**

Table 5 presents the reasons given by the six key informants as to why they avoided initiating interactions in the classroom with the teacher and their peers. Their responses are divided into separate categories identifying their achievement level and then combined to form a total identifying the most significant reason.

<table>
<thead>
<tr>
<th>Madeline</th>
<th>Put up her hand</th>
<th>To check with the teacher whether she had given enough detail in her answer during the Maths test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lucy</td>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>
Table 5: Reasons why high and low achievers avoid initiating interactions

<table>
<thead>
<tr>
<th>Reasons given by the informants for not initiating interaction</th>
<th>Number of high achievers that stated that reason</th>
<th>Number of low achievers that stated that reason</th>
<th>Total number of informants</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feeling embarrassed</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Feeling frustrated at their interactions not being acknowledged by the teacher</td>
<td>1</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Lacking confidence</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Concerned about being wrong</td>
<td>-</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Getting teased by other students</td>
<td>-</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Just not wanting to be involved</td>
<td>-</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Being uncertain of the answer</td>
<td>1</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Not wanting to be the only person initiating an interaction</td>
<td>-</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

The eight reasons they gave are identified as being significant factors influencing the interaction patterns of high and low achievers in this study. The reasons presented in the findings include feeling embarrassed, feeling frustrated at their interactions not being acknowledged by the teacher, lacking confidence, concerned about being wrong, getting teased by other students, just not wanting to be involved, being uncertain of the answer and not wanting to be the only person initiating an interaction.
Of the eight reasons identified, the two most common reasons are being uncertain of the answer and getting teased by other students. For both responses, four out of the six informants identified these two reasons as being key factors in deterring them from interaction.

From the eight factors presented in the table, the ones that are dominated by the low achieving informants (feeling embarrassed, lacking confidence, concerned about being wrong and getting teased by other students) all relate to issues of self-esteem where negative self-conceptions formed from other students, or being unsuccessful in classroom tasks have caused associated feelings of shame and failure.

The high achievers in comparison sighted reasons such as uncertainty and just not wanting to be involved in classroom interactions as being the most significant factors why they avoided interaction. The reasons presented by the high achievers did not relate to self-esteem to the same extent, although uncertainty can be linked. The reason of just not wanting to be involved appeared to be caused more through frustration rather than any other issue because both high achievers believed that some students in their class simply did not try, therefore they questioned why they should make all the effort.

CONCLUSIONS

• SUMMARY OF THE STUDY’S KEY FINDINGS

From extensive observations of the nature and frequency of informants’ classroom interactions, it was found that:

• The high achieving informants attempted a greater number of student-initiated interactions than the low achieving informants,
• When the teacher called randomly on students in the classroom to interact, the inequity between the two achievement levels balanced out with the low achievers being slightly advantaged,
• The teacher was not discouraged by the lack of attempted interactions initiated by low achievers (eg: less hands being up). He called on low achievers anyway and encouraged them to become involved,
• Even when encouraged by the teacher, the low achieving informants were still reluctant to interact,
• High achievers put up their hand to initiate interactions and these interactions were predominantly for the purpose of providing an answer to a question and
• One of the low achievers used numerous methods of initiating interactions, these consisted of a combination of verbal and non-verbal strategies.

With the above behaviours evident in the nature and frequency of high and low achievers’ interaction patterns, the other component of the study was to identify factors that influenced the willingness of high and low achievers to initiate classroom interactions. The following factors were found to be significant in influencing the interaction patterns of the high achieving informants:

• Being uncertain of the answer,
• Just not wanting to be involved and
• Not wanting to be the only person in the class initiating an interaction.

The low achieving informants cited different factors as influencing their willingness to interact in the classroom. Not surprising, their list of factors was longer and they clearly related to not
just experiences in this current classroom, but were factors developed from previous experiences and years of schooling:

- Getting teased by other students,
- Feeling embarrassed,
- Concerned about being wrong,
- Lack of enjoyment and knowledge in a particular subject area(s),
- Personal attitudes towards learning and
- Personal attitudes towards socialising/forming relationships with other students.

What these findings did reveal was that no one factor identified by the high or low achieving informants was responsible for influencing their interaction levels, instead it was a combination of factors, many of which had been developed over a number of years and from different classroom experiences.

An important conclusion that can be supported by the above findings is that low achievers’ reluctance to interact in the classroom can not be blamed largely on their current teacher’s attitudes or behaviours, or even on the treatment they received from peers in their class.

A number of researchers in this field have concluded from similar studies that many students ‘learn’ to become passive in school, it is not a process that occurs rapidly after the experiences of just two school terms (Good, Slavings, Hobson-Harel & Emerson, 1987, p.183). Eder (1981) provides evidence that as early as first grade, high and low achievers learn different academic norms (cited in Good, Slaving, Hobson-Harel & Emerson, 1987, p.183). With such findings evident in past research, it can be concluded that interaction patterns of high and low achieving informants in this study were not solely determined by their experiences in their current classroom, rather such behaviours were as a result of previous schooling experiences.

**RECOMMENDATIONS FOR FUTURE RESEARCH**

Further research is required to investigate the link between age and students’ interaction levels. This study revealed that students’ achievement level does affect their interaction levels in the classroom, however the students in this sample were in their final stages of Primary School. The factors identified as being significant in influencing high and low achievers’ interaction patterns such as attitudes and characteristics regarding learning and socialisation with other students are issues that have accumulated over a number of years, with exposure to different teaching styles, classroom climates etc. A longitudinal study is recommended to track the interaction levels and attitudes of high and low achievers from a junior primary age through to their upper primary years. Such a study would reveal more explicitly the effect that classroom experiences have on the interaction levels of students of varying achievement levels.

Supporting this above recommendation is the view that this study should be repeated, but using a larger sample of students and observing them over a longer period of time (eg: one year).

This current research was undertaken in a classroom where the teacher was a facilitator of learning, not an authoritative source (Jones & Gerig, 1994, p.180). Such a teaching style meant there was little ‘direct teaching’ occurring in the classroom, instead an emphasis was placed on students being independent in the learning process and working collaboratively in groups. Of interest would be similar research on high and low achievers’ interaction patterns, but conducted in a classroom where a traditional teaching style was practiced. Such
research would further support the effects that teacher behaviours and expectations have on the interaction patterns of students of varying achievement levels.

One final area where further research is recommended is studying the effect(s) that single-sex learning environments have on high and low achievers’ interaction patterns. The two low achieving female informants in this study were teased, predominantly by male students in the class, hence avoiding interaction. It would be of interest to see whether similar findings were evident in a single-sex learning environment as what was found in this coeducational classroom.
REFERENCES


