

1883.

NEW ZEALAND.

EDUCATION: NATIVE SCHOOLS.

[In Continuation of E.-2, 1882.]

Presented to both Houses of the General Assembly by Command of His Excellency.

The ORGANIZING INSPECTOR to the INSPECTOR-GENERAL of SCHOOLS.

SIR,—

Wellington, 31st March, 1883.

In accordance with your instructions, I have the honour to forward my report on the Native schools of New Zealand for the year 1882-83.

Seventy-three schools have been in operation during the year—viz.: Sixty-one village, four subsidized, and eight boarding schools. Only one of the boarding establishments is directly under the control of the department; the others are connected with religious denominations, and are in receipt of capitation grants from the Government.

I have visited all the schools, except that at Te Kao, once, and many of them twice, during the year. The work done at them has been found to be very fairly satisfactory; there is marked improvement in nearly all the schools in the North Auckland Peninsula and in those of the South Island; of the Bay of Plenty schools some are doing very good work, and only two are in a languishing condition; a few of the remaining schools were flourishing, but many of them, through the scarcity of food in the district, the prevalence of epidemic disease, or the apathy of the Natives, were considerably below the standard of efficiency that ought to be reached. On the whole it may be said that about three-fourths of the schools are really up to the mark, and that the others are, at present, in a more or less unsatisfactory condition. It may, however, be fairly anticipated that only a very few of these schools will in the end prove to be utter failures; and it may be confidently expected that as time goes on the measures that are being adopted to improve the schools and to render them more attractive and useful to the Natives, as well as the precautions that are taken against founding schools in districts where they are not likely to be permanent, will almost do away with the chance of failure of any Native school that has been or that may hereafter be established.

SCHOOLS OPENED, REOPENED, OR CLOSED.

New schools have been opened during the year at Kaikohe, Bay of Islands; Mangamuka, Hokianga; Moari, Kaeo; Whangaroa: these schools are all very successful so far. New buildings have been completed at Te Kao, Parengarenga, in the far North; at the Kaik, Otago Heads; Maungatapu, near Tauranga; Te Awahou, near Lake Rotorua; and at Whakarapa, Hokianga. New buildings are being erected, or are about to be erected, at Waimamaku, south of Hokianga Heads; Waioeka, near Opotiki; Kirikiri, near the Thames; Waitetuna, near Raglan; and at Pouto, Kaipara Heads. The required sites for schools at Ruataniwha and Ramoto, Wairoa, Hawke's Bay, have not yet been given by the Natives; correspondence with regard to a school at the latter place is still being carried on. Arrangements for a building at Tangitiroria, on the North Wairoa, are not yet complete.

The school at Pakia, Hokianga, has been reopened as a subsidized school; it seems probable that a fair attendance will be maintained there. The number of children at Pahiia, Bay of Islands, was too small to warrant the continuance of a village school there; a capitation grant is now paid for the pupils still in attendance. A subsidy is given to a school established by the Maoris at Papawai, Wairarapa.

The school at Omaramutu, which was closed some years ago, is about to be reopened; as there is a large population in the neighbourhood there is ground for hoping that it may now succeed. A side school has been established at Oruawharo, near Port Albert, Kaipara; this is to be worked in connection with the Otamatea school. The experiment is a rather interesting one; should it prove to be successful it will show that it is possible, when both the master and the mistress of a small Native school are competent to take charge of the main school, to provide for the wants of an outlying district by making arrangements under which a half-time side school may be conducted there by the master or the mistress of the main school.

It has been found necessary to close the school at Poroti, near Whangarei; a few of the Natives of that district are very turbulent and troublesome, and it will probably not be possible to keep a school going there until these Natives get into a better frame of mind. The experiment of reopening Pakowhai proved a failure. Manaena, the chief of the village, did the best he could to induce the Natives to send their children; he even maintained several of the pupils at his own cost. The attendance, however, gradually fell off, and the school had to be closed. The school at Waihirere, Wairoa, was doing no good, and it, too, was finally closed.

NEW SCHOOLS REQUIRED.

The Moku Natives have sent in a sort of informal petition for a school, and it is probable that they will eventually take steps to have one established in their district. Negotiations for reopening the schools at Waiapu and Kawakawa, near the East Cape, have been unsuccessful so far. The Natives of the former place appear not to see their way to give a suitable site. The obstacle is, seemingly, a semi-superstitious belief that if they allow a site to be surveyed the thin end of the wedge will have been introduced, and their lands will gradually pass into the hands of the pakeha. The Kawakawa Natives offered a suitable site, but managed to hand over to the Government a valueless piece of ground, nearly covered with shingle, in place of it. It would hardly have been wise to remove the school building to a site of this description. In consequence of these difficulties, nothing has been done in the way of providing increased school accommodation for the Waiapu District; this is to be regretted, as such accommodation is greatly needed there.

The people of Te Ore Ore, near Masterton, are asking for school buildings; they offer a good site, and have shown, by keeping up a good attendance at their subsidized school, that a properly equipped school at Te Ore Ore would be successful. Their present school building—a mere makeshift—has served its purpose, and there is no reason that I know of why these Wairarapa Natives should not get a school. The Papawai people will probably do as their neighbours have done—offer a site, and ask for school buildings. The runanga-house, now used as a schoolroom, is much better suited for school purposes than the building at Te Ore Ore; but it, too, can be considered only as a makeshift. Temporary arrangements like those adopted at these two places have one very important drawback; it is quite impossible to get thoroughly suitable teachers to remain at schools where there is no decent residence, where the school work has to be carried on under very great disadvantages, and where the remuneration for the work done (a small subsidy, supposed to be supplemented by the Natives) is necessarily low, and the portion of it that has to be collected locally is generally a “vanishing quantity.”

Petitions for new schools have been sent in from Kenana, Takahue, and Parapara, all in the Mangonui District; from Umuhika, about mid-way between Matata and Te Teko; and from Kainikini near Whangaroa Harbour. I have not been able to visit any of these districts since the petitions came in.

NATIVE SCHOOLS IN FULL OPERATION.

The schools are dealt with in groups, geographical position being the basis of classification.

Mangonui.—In this district there are now eight schools; H. W. Bishop, Esq., R.M., acts as Superintendent. The Natives here are not generally well to do, but they are, as a rule, orderly, law-abiding, and very intelligent; most of them take an encouraging interest in the education of their children. The principal drawback to the success of the schools here is the absence of many of the children during a considerable part of the year while they are engaged in digging kauri gum. Of the Mangonui schools, Peria was, on the whole, the most flourishing. It came out exceedingly well at the examination, and was, in nearly every respect, very satisfactory. The master is fortunate in having the assistance of a good Committee and a very energetic chairman. Pukepoto showed some signs of flagging, as the best of schools will occasionally, in spite of teachers' efforts; it is probable, however, that it will resume its old position next year. The master is a very enthusiastic and painstaking teacher. Kaitaia did well, and would, if a regular attendance could be secured, do even better. Awanui under its new master was flourishing. Some time will have to elapse before it can be considered certain that this school is going to do well, or before it will be possible to say that it has not been merely galvanized into activity, to subside eventually into its original torpid state. At present there is reason to be hopeful about it. Ahipara should prosper, seeing that the population is large. The school, however, has some difficulties to contend with; one of the most serious of these is that there is no large kainga near the school; the Native dwellings are scattered, and it is hard to secure concerted action by the Committee. There is, however, no insuperable obstacle in the way of success, and, should the master be able to secure the sympathy and good-will of the Natives, he will certainly have a very good school. I did not visit Te Kao, Parengarenga, because the new schoolbuildings were not completed until after my departure from the district. The school was reopened in November under favourable circumstances. Moari, Kao, promises well; the attendance is very large, and there is reason to believe that the school will be permanently successful. Heremaia, the leading Maori of the place, took great interest in the establishment of the school, and is now doing all that lies in his power to make “his” school rank among the first. The children at Te Ngaere had made very fair progress, but the Natives of the district are very apathetic.

Bay of Islands.—J. H. Greenway, Esq., of Russell, superintends the schools in this district. Waikare is languishing at present; the attendance has fallen off considerably, and the results of the examination were less satisfactory than they had been the previous year. At Paihia the number in attendance was small, but the work done was by no means bad. Ohaeawai did remarkably well at the examination, and gained more than it had lost through partial failure the previous year. There is now a good Committee at this school, and the attendance is improving. Mangakahia has fallen off slightly. A new master has been appointed, and it will probably take him sometime to get used

to the place and the Natives. As he has a young family, it would probably be well to remove him to a less out-of-the-way place when there is a favourable opportunity of doing so. Mangakahia would be a good school for a young couple (without family), who did not mind having to live in an isolated place, and who were used to the hardships of bush life. Kaikohe is a very remarkable success in every way. It is in one of the most thickly-populated Maori districts in the colony; it has therefore a large attendance; there is an excellent Committee, and the school arrangements are very satisfactory. At Taumarere Girls' Boarding School good results were obtained from the pupils in attendance. It has been found, however, that it is not possible to get a sufficient number of girls that have passed Standard IV. to attend the school. Arrangements have therefore been made for discontinuing it. The heavy cost of maintaining children at a boarding-school renders it undesirable to send our children to such an institution, unless some special object is to be gained. The special object aimed at under the new regulations was, in the case of this school, to give the girls that had finished their village-school course instruction in branches not taught in the primary schools, and also to let them have some training in domestic matters. As such girls could not be obtained, the school's *raison d'être* no longer existed, and the only thing to do was to close it. This institution, however, did much good in its time; many girls educated in it have been much benefited by the training they received under Mrs. Tautari. Had it not been for the heavy cost per head, and the consequent impossibility of making an institution of the kind useful in more than a few isolated cases, it might perhaps have been desirable to continue this school, and to establish similar ones throughout the Native districts.

Hokianga.—The schools here are superintended by Spencer Von Stürmer, Esq., R.M. They are, without exception, doing good work. Whangape has a very large attendance. There is not a more useful school in the colony than this. As far as I know, there are now no European settlers in the district, and the Natives have comparatively little intercourse with those of other places. I found that the first year's work had produced very fair results, and that there was every reason to believe that the school was going to be permanently successful. The department has been very fortunate in securing the services of a very hard-working and conscientious teacher for this important school. Waima is an old school reopened, after having been closed for a considerable period. The new master had had no previous experience as a teacher, but he possesses other qualifications that fit him for doing great good in a Maori district; he succeeded very rapidly in acquiring a knowledge of method, and of the means of maintaining discipline, and he is now a valuable teacher. Maori schools are different from European schools in so many respects that previous experience in teaching is a matter of comparatively small importance as far as a master's future success is concerned; an experienced teacher of Europeans has so much to unlearn before he can succeed with Maoris that he is really hardly in a better position, for a considerable period, than one who knows nothing at all about the matter. The essential requisite is to get men who will be able to gain the sympathy and respect of the Natives, and who will be anxious to do them good. It is not, as a rule, difficult for such men to make themselves effective teachers afterwards. Some of our very best teachers knew nothing about the work when they first took charge of the schools. Waima did very well indeed at the first examination. Waitapu is the most advanced school in the district. It is in every way very satisfactory. Omanaia is one of the schools that have been lately established in the district. The master has had large experience in teaching in secondary European schools. When he has acquired the knack of teaching the lower classes, so as to make them thoroughly sound in the rudiments, his previous experience will be of great use to him. The examination results were not so satisfactory as they would have been if the instruction given had had a narrower range. The defect was, not that the children did not know enough, but that their knowledge was not sufficiently thorough to stand the examination tests. The master is very industrious and enthusiastic, and is, I think, sure to do well eventually. Whirinaki: there is a new master here; he had made a good beginning when I visited the school; time is, of course, required to show whether Native school work suits him. The attendance was improving. At Motukaraka, one of the newly founded schools, really excellent results were obtained in the two lower standards. A little more neatness in the schoolroom would be advantageous here; no doubt the Committee will see to this matter. Mangamuka is another new school; it will certainly be a good one. The master did good work at Rakau Para for many years under disadvantageous circumstances; with a neat and comfortable schoolhouse and residence, and a large and regular attendance, he will probably do even better. Upper Waihou is a very good school. On the whole, the Hokianga schools hold the first place among the North Island schools for the past year.

Whangarei.—J. S. Clendon, Esq., R.M., acts as the Superintendent of this district. The Poroti school was in an extremely unsatisfactory condition, and had hardly any attendance. This state of matters was mainly owing to troubles with the Natives. Ngunguru, which had been languishing the previous year, had somewhat recovered; there is reason to hope that it may yet do well.

Kaipara and Waikato.—G. T. Wilkinson, Esq., of the Native Office, Auckland, is the Superintendent of the districts. Matakohe showed improvement. The educational arrangements were satisfactory, but there was some discontent amongst the Natives because the master was residing away from the school. As a great part of the good to be done by a Native school depends on the personal influence of the master with the adult Natives, it is, of course, desirable that he should live amongst them. The cause of the discontent has since been removed. Otamatea is considered good; the attendance is small, but it is improving. As has been previously said, arrangements have been made for extending the master's sphere of usefulness. At Pouto I found improvement in the discipline and school organization, but the new teacher had not had sufficient time to produce very striking results. The school-room was badly lighted, thoroughly inconvenient, and probably unhealthy. A new building is urgently needed. At Waitetuna only very moderate results were obtained; the building used as a school—a nearly worn out Maori church—was so unfit for school

purposes that it was found impossible to carry on the work in wet or windy weather. It is hardly to be wondered at if the attendance generally became irregular, and the interest of the Natives in the school declined. In the new school the teacher will have a fair chance of succeeding. I examined five pupils paid for by the Government at St. Mary's, Ponsonby. The girls had been properly attended to; the passes obtained were two in Standard I. The Native boarding-school at St. Stephen's, Parnell, was found to be, as it always is, in satisfactory order. Nearly every pupil examined passed, and passed well. Many of the elder boys showed that they possessed knowledge far beyond the requirements of the standards. All the work done is very thorough, and it is almost impossible to find weak places in it. It strikes me, however, that it would be advantageous if the ratio of the oral to the written work were somewhat larger. It is, I think, generally acknowledged that there is at the present day a tendency to give preparation for written examinations too prominent a position in school education. There can be no doubt that it is quite as important that a child should be trained to be prompt in reasoning and in inferring, and to be capable of producing in conversation off hand what he knows, as that he should be able after reflection to give his matured thoughts in writing. This applies at least as forcibly to Maoris as Europeans; it is evidently desirable, at any rate, that Maori pupils should be made to talk English as much as possible. This being so, it is plain that, in teaching Maoris, or in examining them, one ought to endeavour to prevent the oral work from occupying too subordinate a place. Much might be said in praise of the domestic management and arrangements; the only thing that now seems to require improvement here is the sleeping accommodation. The expense would, I suppose, be considerable; but it seems to me desirable that sheets should be supplied for the use of the boys. This would at once give the dormitories a much neater appearance than they have at present, and would add greatly to the boys' comfort. Of the boys examined here, ten passed in Standard I., ten in Standard II., five in Standard III., and four in Standard IV.

Tauranga.—H. W. Brabant, Esq., R.M., is the Superintendent for this district. The attendance at nearly all the schools was suffering, or had recently suffered, through epidemics, Land Courts, or scarcity of food. They thus made a less satisfactory appearance than they might otherwise have done. Maungatapu, which had been in a very promising condition the previous year, was found to have fallen off greatly; it is now, I believe, suffering a recovery. Te Awahou, too, was at a very low ebb, but a recent visit shows that there has been marked improvement in every respect. Ohinemutu has always been more or less unsatisfactory, generally more; the Natives' attention is so taken up with other matters, and they have been so unsettled by causes that it is unnecessary to enumerate here, that such a trifle as the education and future welfare of their children appears to give them but little concern; there are, however, a few hopeful indications, even here. The attendance appears to have improved a little, and the children seem to take somewhat more interest in the school than they did formerly. On the whole, however, though the master appears to do his best, the results are very disappointing. Te Wairoa, Lake Tarawera: This is certainly one of our best schools; it suffered only slightly from the causes mentioned at the head of this section. The examination results were very creditable to the teachers. Rotoiti had declined considerably; no girls were in attendance. There appears to have been some misunderstanding among the Natives with regard to the prizes for regular attendance. These prizes have been of great use in nearly every school in the colony, and it is hard to understand how the difficulty can have arisen here. It is said, too, that the appointment of a Native to act as sewing-mistress has caused jealousy amongst the other women, and that this is the reason why the girls have left. Whatever be the cause of the difficulty, measures should be taken to set matters right, seeing that a thoroughly successful school is much needed in the district. Maketu: There seems to be smouldering discontent with the master of this school among a section of the Natives of the district. There is no reason why this should exist; the master is a careful and painstaking teacher, and qualified to do his work. The examination showed that satisfactory improvement had been made. The attendance was much larger than it had been the year before.

Bay of Plenty East.—R. S. Bush, Esq., R.M., is Superintendent of this district. Matata school is very good. The results obtained at the examination were quite satisfactory. The discipline, formerly a weak point, is now good. The only thing noticeable as requiring amendment is the condition of the school-room; greater neatness is desirable. The buildings are to be removed to a more suitable position, and are to be thoroughly repaired and refitted. It is hoped that when these works have been executed the Committee will effect some improvement in the matter of keeping the school tidy. At Te Teko much and good work has been done. The results were creditable to the teachers, who had had no previous experience of this kind of work. The very useful but isolated school at Fort Galatea is still successful. The master deserves very honourable mention for what he has effected in this very out-of-the-way place. He is one of our most skilful and thorough class-teachers, and, with a little less of the *fortiter in re* in dealing with Maori children—which I am inclined to think to a certain extent prevents him from gaining their affection—would always be a very successful native-school teacher. The attendance at Whakatane had fallen off considerably since my previous visit, but the school is still deserving of high commendation. (The attendance has greatly improved since my visit, and is now large.) Waiotahi failed to maintain its previous character; it may, however, be fairly expected to do much better next year. Torere did well, though, perhaps, all things considered, hardly as well as at the previous examination. This school owes no small part of its success to the influence of Wiremu Kingi, the chief of Torere, who has always been a strong and intelligent supporter of the school. The master is skilful, painstaking, and very original. At Omaio the progress has been satisfactory, but the attendance was not very large. A little more practice, and a more enlarged acquaintance with good methods, will make the master a capital teacher. Maraetai, Te Kaha: This school, with regard to such matters as neatness, organization, and system, is excellent. Good progress has been made, and the school did well on the whole at the examination.

East Coast.—John Brooking, Esq., of Gisborne, has been acting as District Superintendent of the schools on this coast. Waioamatini: The influence of Major Ropata, and the painstaking and care of the master and mistress, keep this school up to the standard that was reached by the former teacher. This is one of our best and most useful schools. The results obtained at Akuaku were rather disappointing. The master appeared somehow to have failed to obtain the sympathy of the Natives, and, consequently perhaps, the attendance has been very irregular. The teacher understands his business, though, and it may fairly be hoped that, as he gains experience in dealing with the Natives, he will succeed in obtaining their co-operation, and get a chance of showing what he can do under fairly favourable circumstances. Tokomaru school was closed temporarily, owing to the dangerous illness of the master, and the children could not be got together to be examined. The examination of Tolago Bay school gave but very moderate results; many of the children were very young. The attendance did not warrant the keeping this on as a village school: it is now under a female teacher, who receives a subsidy from the Government. Three of the four boarding-schools in the Hawke's Bay District gave satisfactory results when examined; the fourth, St. Mary's, Meancee, (R.C.), had been thrown out of working order through a change of masters and of management; it had not recovered at the period of my visit. The passes obtained were two in Standard I. St. Joseph's Providence, Napier (R.C.), managed by the Sisters of Our Lady of Missions, did remarkably well. The girls had made great progress in every subject. No one who has seen this school at work can doubt that the girls educated there receive very great benefit from their training. It may be, and often is, the case that girls who leave this and kindred institutions do not at once give very striking proof of the good that has been done to them, but after a time—after they have settled down and married—the effects of the influence for good that has been brought to bear upon them become plainly apparent, and their dress, their houses, and their children nearly always show that old pupils of these schools have been improved, in many most important respects, by the school training they have received. Passes were obtained here as follows: Four in Standard III., two in Standard II., and seven in Standard I. The Protestant Native Girls' School at Hukarere, Napier, also did very well indeed. Some few defects were noticed in the methods employed; these have since been remedied. The difficulty referred to in last year's report, arising from the weakening of our village schools through the removal of pupils from these to the boarding-schools, has been obviated to a certain extent. The authorities of the boarding-schools now endeavour, as far as possible, to obtain pupils from districts where there are no village schools. The good effects of the adoption of this policy will, I feel sure, very speedily become apparent. It is hoped that in a short time a sufficient number of Fourth Standard pupils will be obtained to supply all vacancies in the boys' boarding-schools, and a large number of those in the girls'. When this has been brought about, both village and boarding schools will be doing the kind of work they are best fitted to perform. They have a very salutary rule here at Hukarere: in accordance with it a girl that has passed all her examinations spends three months in the kitchen as a sort of head-cook, before she finally leaves the school. Of the twenty Government scholars examined, one passed in Standard IV.; one in Standard III.; three in Standard II.; and four in Standard I. The Native College at Te Aute is quite *sui generis*. We have here a good secondary school for Maoris. It is well equipped with all necessary appliances, and the education given is of a superior kind. Of the ten Government scholars examined in the Fourth Standard, four passed. After the routine work was done, papers were set for the whole school. The subjects were history, geography, English, mathematics, and elementary science. The questions given were such as one would have set for an advanced class in a European grammar school, and were such that mere book-cram would have quite failed to enable the pupils to deal with them. The answers varied from very good down to fair. No paper was sent in by any boy in the senior class that was not at least respectable. The answers given to the science paper on Huxley's "Introduction to Physics" were remarkably good, and showed that the pupils had thoroughly mastered the work they had gone over. The questions set for the second class, too, were well answered as far as the matter was concerned, though the style was, of course, less perfect. The third and fourth classes, taught by the assistant-master, showed very satisfactory progress; the arithmetic was especially good. The fifth class, taught by a Maori assistant, was very much weaker. It seems to be rather a mistake to set a Maori, be he ever so correct a speaker himself, to teach young pupils English; he will naturally tolerate and perhaps fail to notice mispronunciations and mistakes that an Englishman would instantly detect and correct. I imagine that under a Maori teacher children might acquire very bad habits in speaking, that it would be very hard to eradicate afterwards. At the examination the best percentages were gained by—(1) Taramana Hei; (2) William Nehua; and (3) T. G. Poutawera. While the intellectual education of the boys is thus thoroughly well attended to, their physical training is not neglected. There is a fairly complete gymnasium, and English games such as cricket and football are played skilfully and successfully. Each boy has a moderate share of work in the garden assigned to him. He has besides a plot of ground that is all his own while he remains at the college; he may grow what he likes in this plot and dispose of the produce as he wishes. The domestic arrangements are good, and so is the food. There is one other matter that may be alluded to; the boys are taught to behave themselves well here. I spent a whole evening with the boys of the senior class at Te Aute, and noticed that there was no trace of bashfulness, loutishness, or forwardness in the conduct of any of them. On the whole, this Te Aute institution is a very satisfactory one. In connection with Te Aute it should be mentioned that two examinations were held during the year of candidates for the Te Makarini scholarships. The papers set were purposely made difficult, because such papers differentiate candidates completely. The harder the papers are the more certain and satisfactory is the decision arrived at, when the object is merely to select the best three of a number of candidates. The answering varied from moderate to very fair. Two scholarships were gained by pupils from Otago Heads Village School; one by a boy from The Neck, Stewart Island; one went to a junior from Te Aute; and two to pupils of St. Stephen's, Auckland.

Wairarapa.—The schools in this district are managed in the same way as those in the South Island. Te Ore Ore has suffered to some extent through a change of masters, and from the thorough unsuitability of the building used as a schoolroom. The examination results were only moderate; this, however, will be a good school eventually. The new school at Papawai is doing well; it had been but a short time in operation when it was visited, and very striking results were not to be expected. The master works hard, and will probably be a successful teacher.

South Island and Stewart Island.—These schools are under the direct supervision of the department; communication with them is easy, and the services of District Superintendents are not required in connection with them. Waikawa labours under some disadvantage; the attendance is not exactly irregular, but it is discontinuous; at certain times of the year the elder children have to go away from school whaling, shearing, mustering, or harvesting. In spite of this the master manages to get a high percentage and a large number of passes. The only defect noticeable here is some want of neatness in the schoolroom. The Committee will probably get this matter remedied. Wairau did not appear to advantage. Sickness had made the attendance irregular, and the examination results were consequently only fair. This is ordinarily a satisfactory little school. Mangamaunu had made fair progress; it had been somewhat affected by the excitement of the Natives about a murder that had taken place in the kainga a short time before. This event had to a considerable extent taken up the attention of the children, and prevented them from giving their minds to the work of the school. Kaiapoi was very satisfactory. This is now one of the best Native schools. Little River appeared to be doing better; the examination results were very fair. The Committee might with advantage take steps to make the schoolroom somewhat neater than it is. Rapaki always makes a good appearance at examinations; this time it did particularly well. I am inclined to think that, in one sense, it was rather too good; young children were presented for Standards III. and IV. who should have been working at least one standard lower. These children passed; of course, this speaks well for the master's skill and industry, but I doubt whether it is good for the children to work so very hard, and so long after school hours, as they must have done to enable them to pass as they did. If this sort of thing should continue it might be necessary that a limit of age should be fixed below which children should not be examined for the higher standards. At Onuku the difficulty referred to in last year's report had been got over, and the inspection and examination gave satisfactory results. Waikouaiti is another of the best class of schools; the master, while he does the ordinary work well, manages to develop the reasoning powers of his pupils to quite a remarkable extent. At Otago Heads the Maori attendance has fallen off somewhat; this is an excellent school. Port Molyneux obtained a high percentage and numerous passes; this is a small school, but a very good one. Riverton had improved; the results were considerably higher than those obtained at the previous examination. Colac Bay gave only pretty fair results this year, but there is reason to hope that it will soon regain its former position. Ruapuke acts as a sort of feeder to the school at the Neck; young children that could hardly be sent over to Stewart Island receive a certain amount of training at Ruapuke; they are then transferred to the larger school, where they make rapid progress. The school at the Neck ranks along with those at Otago Heads, Waikouaiti, &c. It is doing most useful work, and nearly always makes a good appearance at examination time. The schools in the South Island continue to be more advanced than those in the North, but year by year the best Northern schools are approaching more nearly the standard that has been reached by the best of those in the South. On the whole it is gratifying to be able to say that encouraging progress has been made in spite of serious drawbacks in some of the districts; these drawbacks have already been referred to.

TEACHERS.

At the end of 1882 there were employed, as head-teachers, in Native schools, fifty-six masters and six mistresses; there were also employed, as second teachers, nineteen mistresses or assistants and thirty-seven sewing-mistresses.

It has been said that teachers may be divided into four classes: those who understand their work and are anxious to do it; those who know how to work but do not do it; inexperienced teachers who wish to become competent; and teachers who neither know how to teach nor wish to know. Our teachers almost all belong to the first or the third of these classes. Native school work is not to be mastered in a day; the difficulties are numerous and peculiar, and to be overcome only by actual workers in Maori schools. All those who enter this branch of the profession have very much to learn, whether they have had previous experience in European schools or not. As, however, there is very little to distract a native-school teacher's attention, he soon begins to get over the main difficulties, if he is anxious to learn the work; he soon finds that apparently formidable obstacles may be overcome. Any way, it is found that new men who put heart into the work, after they have once taken a class through each of the four standards, become fairly efficient teachers. In a few cases it has happened that a master has given in after an effort or two, thinking that he would probably "pull through somehow." Such a master never does pull through. On the whole there is, I think, every reason to be satisfied with the staff employed in the schools; it would probably be difficult to get a set of teachers better suited for the work they have to perform. There is one gratifying fact that ought to be mentioned. It was formerly not easy to get good teachers; there is now no difficulty whatever in getting suitable persons of respectable attainments to take charge of Native schools. It is quite a mistake to suppose that, while clever, active men are required for European schools, any one that can speak English fairly will do for a native-school teacher. For obvious reasons the responsibilities of a teacher of a Maori school are far greater than those of a teacher of Europeans. If a master of a European school prove to be a failure another man may take his place and the school will suffer but little; a bad master in a Native school may easily cause the utter and final ruin of his school, and render its re-establishment impossible. If

the Natives have a master sent them by Government, and he treats the children cruelly and misbehaves himself, the Maoris conclude that, as he is probably a fair specimen of what schoolmasters generally are, they would rather manage to rub along without one, that education is a great mistake, and that they will have no more of it. This would seem to be a valid reason for making teachers' residences comfortable, giving them fair salaries, and, generally, making them feel that it is rather a good thing to be a native-school teacher; in this way, and in no other, good men may be drawn into the service and kept in it.

COMMITTEES.

About one-half of the School Committees do their work well. Good Committees are to be found at Peria, Pukepoto, Waiomatatini, Te Wairoa, Matata, Kaikohe, Ohaeawai, Torere, Te Teko, Port Molyneux, and many other places. At Ohinemutu, Tokomaru, and a few other schools very little work is done by the Committees. In many cases the Chairman is the only active member of the Committee, as at Kaiapoi, Te Awahou, Upper Waihou, &c. Where this plan is adopted, and the Chairman is an active, intelligent man, who receives what may be called the passive support of the others, the arrangement works very well,

I would again draw attention to the necessity that exists for a short Act giving Native Committees the power of making education compulsory in their own districts. It is found that where the Natives take the most interest in the education of their children, there is the greatest desire that the Committees should possess this power. The Native Committees are of very great use when they do their work, and it is desirable to increase this usefulness by giving them powers to deal with parents that take no interest in their children's future welfare.

RECORDS.

These are in almost all cases fairly well kept. At some schools the entries in the log-book are very meagre and unsatisfactory. This book when properly kept is of great use, because it enables one to learn in a few minutes the history of a school during the interval between two visits; it also gives complete information as to the requirements of the school, repairs and so forth. At an inspection there is frequently not sufficient time for an Inspector to elicit all the information he needs, if this has to be extracted in the course of conversation. The best log-book was found at Maketu, but there were three or four others nearly as good. The school records generally are admirably kept at Te Kaha.

ATTENDANCE.

Owing to causes already enumerated, the average attendance has not increased quite so much as it did in the previous year; while the average attendance for the last quarter of 1879 was 1,042, 1,227 for the last quarter of 1880, and 1,458 for 1881, the strict average for the corresponding quarter of 1882 was 1,473. The working average for the whole of 1882, however, was 1,648·25, against 1,562·25 for 1881. There were 2,024 names of children on the school rolls at the end of 1882, against 2,010 at the end of 1881.

STATE OF BUILDINGS AS REGARDS NEATNESS, ETC.

The following schools are mentioned in the reports as being commendable for general neatness: Kaikohe, Omanaia, Peria, Whangape, Te Kaha, and Port Molyneux. There are many others that are quite satisfactory. The Committees are supposed to attend to this matter, but, generally speaking, the influence and example of the master have much to do with the general appearance of the school buildings.

STATE OF BUILDINGS AS REGARDS REPAIRS REQUIRED.

With very few exceptions, all Native school buildings are in good order. Some of the school-houses and residences might, I think, almost be taken as models of what village schools should be. Many of the old and inconvenient buildings have been greatly improved, and, with the exception of some of the subsidized schools, there are none in which the work of education cannot be satisfactorily carried on.

APPLIANCES AND FURNITURE.

Nearly all the schools are now properly furnished. In a few cases the desks in use are bad, but this is where the prospects of the schools are not encouraging enough to warrant additional expenditure on new furniture. The desks made in accordance with the department's specifications are found to be very good. Much time and care were given to the elaboration of the plans for them. The Dutch dual desk, modified in America, was adopted by the Auckland Board. This received further modification, and was adopted by the Taranaki Board. It was then taken up by the Education Department, and altered so as to secure greater comfort and convenience for the children that have to use it. It is now an admirable desk, and when fixed on suitable platforms is found to leave nothing to be desired. The teachers generally are careful not to allow the desks to be stained or disfigured, and our schools, with regard to this matter, present a pleasing contrast to many European schools.

GARDENS, ETC.

Many of the teachers have well-kept gardens. It is a rule, without exception, that where there is a good garden there is a good school. The reason of this is, I suppose, that a teacher who takes pains to make the surroundings of his school pleasant and attractive will also take pains with everything he has to do. The converse proposition, however, does not hold good. There are many good

schools where the gardens are badly kept. It is, however, desirable that all teachers should do the best they can with their gardens. Nothing can be more beneficial to a teacher, after a day's hard mental work, than an hour or two's gardening; besides, it does the Maoris, both old and young, much good to see their teacher exerting himself to make his place neat and trim. If his own residence is untidy and neglected, he might tell Maoris as often as he liked to be tidy and industrious without producing the least result, except making them think that his practice does not square with his precept; but, if he shows them the nature of his faith by his works, they will not be long before they begin to imitate him. I know of no case in which the Natives have anything that deserves to be called a garden except in places where the teacher's garden is in good order. The best gardens are to be found at Paihia, Waima, Kaiapoi, Otamatea, Te Wairoa, and Te Kaha.

PLAYGROUNDS.

Arrangements have been made in accordance with which horizontal bars, parallels, and circular swings are supplied to schools where the masters are sufficiently skilled in gymnastic exercises to make this apparatus likely to be of real service. The expense is very small. Maori children are very liable to chest disease. It can hardly be doubted that gymnastic exercises, especially those that expand the chest and strengthen its muscles, are likely to do more in the way of giving them a fair chance of getting over this difficulty than almost any other remedies that could be used.

ORGANIZATION.

There are only two matters that require to be mentioned under this head—time-tables and supervision of the younger children. A "fancy" time-table is one constructed in accordance with certain generally received principles, it would gain the approval of an examiner in the art of teaching, and would obtain a large number of marks from him. A good working time-table is one thoroughly adapted to the school in which it is used and to the teacher who has to work by it. In many cases a fancy time-table is to be found hanging on the wall of a Native school, while the teacher apparently looks upon its precepts as things that he ought to carefully avoid obeying. There is always some solid reason for this: The weather has been very wet, and the attendance has been irregular; it has, therefore, been found necessary to disregard the time-table for a time: the table has been temporarily laid aside in order that the children may go over back work: the table has been found unworkable and another is being constructed: the children are backward in some subject and more attention has to be devoted to it, under the circumstances it is not possible to keep to the order of work laid down in the table. With regard to this matter it may be said that it is bad for a master to be working without a time-table, but it is still worse to pretend to be following out a certain order of work and to be doing something quite different. The safest thing for a teacher with limited experience to do is to get some one to draw up a theoretically good table for him. This should be kept in his drawer. He should then make a rough table of his own, representing the work that he feels capable of doing and that he actually does. Alterations in pencil should be made from time to time. All the while he should be endeavouring to approximate more nearly to his model. In this way he would in time get a thoroughly good document and be able to work from it. A teacher should remember that, though it is not the Inspector's place to say how work must be done, it is his duty to ascertain how it actually is done, and that a time-table whose precepts are not obeyed is entirely misleading. It is, I suppose, unnecessary to insist upon the advantages that are connected with the order and system that naturally attend the possession and observance of a good programme in a Native or any other school. When a time-table really represents the work, the children know exactly how and when each thing is to be done, and the school, like a well-constructed machine, does its work with great smoothness and regularity. In connection with this matter I would mention that it seems to be necessary to ask for a return of the number of times that the sewing-mistress of each school has been absent from her duty; I am afraid that in some cases such absences occur too frequently, and are not recorded in the log-book.

In many schools there is still insufficient provision for the supervision of the young children. The proof of this is that much of the work of the juniors is done in a slovenly and unsystematic manner. It is of little use for the master to move briskly round his school, and attend to all the work that is being done on inspection day, unless he is in the habit of doing it regularly. There is such a difference between the work of little children that are constantly attended to, and that of those who are allowed to look after themselves, to scribble on their slates, and to develop their conversational powers at will, that a fairly experienced teacher can detect it at a glance. Teachers would, I think, do well to remember that, if the exigencies of the school render it necessary that any part of the school should be left without effective supervision, it is the seniors, and not the juniors, that should work by themselves, seeing that the former may do useful work if left to themselves, but the latter will certainly do worse than nothing, by contracting bad habits that it may afterwards be impossible to remove.

DISCIPLINE.

In about nine-tenths of the schools, both the order and the school tone are satisfactory; in none are they very bad. A few teachers still make use of corporal punishment, but many who formerly thought it indispensable now find it easier, and far more pleasant, to do without it altogether. In some instances it was found that no record had been made of punishments of this character. Every instance in which it is found necessary to resort to this *ultima ratio* must be of sufficient importance to require mention in the log-book. The following schools may be named as being remarkable for good order, or tone, or for both: Peria, Kaikohe, Waima, Otago Heads, Whakatane, Paihia, Port Molyneux, and Waitapu.

METHODS.

A very few of the teachers still appear to think that they can do better by adhering to the methods that were in vogue forty years ago: that it is less difficult to teach children one at a time than to deal with ten or twenty simultaneously. A few also do very little teaching, but confine themselves to examining and overlooking. It is not that they are unwilling to teach, quite the contrary; they, indeed, work harder than those who use the much more powerful collective methods, and understand how much may be done with a blackboard and a piece of chalk. The principal defect noted in the teaching of those who have adopted the better methods are the following: (a) If a pupil makes a mistake the teacher corrects it, but sometimes does not make sure that the child has grasped the meaning of the correction, and is not likely to make the same mistake again. (b) The mistake made by the child is not taken as an indication of probable weakness on the same point throughout the whole class, and the teacher does not endeavour to make all the children profit by the correction of the mistake made by one. (c) In questioning a class the teacher asks only the more intelligent pupils to answer, and does not take pains to make the more backward ones understand the question and assimilate the answer. (d) Questions are too often independent one of another: they are good enough perhaps in themselves, but they do not lead up to anything. Teachers should remember that a satisfactory answer should generally be the basis of another question. (e) There is often good ground for inferring that lessons are purposeless; that is, that the teacher has not prepared or thought over his lessons beforehand, and said to himself, "I will make these children understand this or that new thing to-day;" or, "I will endeavour to consolidate the knowledge of the children about this or that matter." (f) Sufficient attention is not always given to the correction of mistakes made in written exercise, and still less to the prevention of the recurrence of such mistakes. (g) Children are sometimes left to puzzle out for themselves problems, pieces of composition, &c., for which they have been only imperfectly prepared. (h) After a lesson has been well and carefully given, up to a certain point, there is no recapitulation to fix the lesson as a whole in the children's memory. On the whole, however, I have to report satisfactory improvement in the methods employed in the schools.

INSTRUCTION.

Table No. 3 in the Appendix shows the examination results of the instruction given in the Native schools during the year. The results for 1882 as compared with those of 1881 are as follows:—

		1881.		1882.
Number of children examined	...	1,489	...	1,625
Passed Standard I.	...	241	...	263
Passed Standard II.	...	161	...	146
Passed Standard III.	...	65	...	81
Passed Standard IV.	...	25	...	29
Total passes	...	492	...	519
Number of children that did not pass	...	997	...	1,106

A few remarks may be made about the results obtained in each subject:—

Reading.—In many schools this subject is well taught; there is, generally, great improvement in the pronunciation; comprehension of what is read nearly everywhere receives satisfactory attention, with pleasing results. Pukepoto and Kaitaia excel in this part of the work. In some instances the teachers still seem to think that children must be taught a sort of jargon before they begin to read English. This is a very great mistake; it is much easier to teach children to read properly from the very beginning than it is to let them whine or drone on in a painfully monotonous way, and then afterwards to seek to free them from a habit that they have taken considerable trouble to acquire. Spelling is very often imperfectly taught; at the examinations it is found that children can spell words that they have learnt, but are quite unable to deal with new ones. It seems to me that Maori children should be carefully taught the powers of letters, and that for some considerable time they should spell only words that are phonetically represented by the letters that compose them. If this plan is adopted the children soon acquire the power of spelling any regular English word whether they have learnt it or not. Besides, this may be made extremely useful in enabling them to master pronunciation. Irregular words can be learnt afterwards in the usual way. Few teachers can be induced to give this method a fair trial; those who have done so are much pleased and surprised at the results obtained.

Writing.—There is still room for very great improvement in this subject; Maoris can so easily be taught to write well that anything short of good writing in a Native school must be regarded as unsatisfactory. If Maori children are left to their own devices of course they get into the way of scribbling just as other children do; but, with a moderate amount of careful instruction, Maoris can be got to write admirably. The writing is very good indeed at Peria, Otago Heads, Waikawa, (Maoris), Kaitaia, and many other schools.

English.—The progress made in this subject has been considerable; the children now generally understand the ordinary inflections and use plurals, pronominal distinctions, tenses of verbs, &c., properly. These matters used in the majority of schools to be considered as of no moment. If children could use English words and the Maori idiom together all was well. I think that more improvement has been effected in the teaching of this subject by the introduction of the standards than of any other. Kaitaia School is remarkable amongst the northern schools for excellence in English.

Arithmetic.—Arithmetic is now generally well taught. The easy-problem work, which was considered by many teachers to present insuperable difficulties, has been found to be not so formidable after all. The failures in arithmetic this year have been nothing like so numerous as they were at previous examinations.

Geography.—In some cases the results obtained have been excellent; they were surprisingly good at Waikouaiti. In most of the schools the subject is fairly well taught.

Sewing.—St. Joseph's Providence and Hukarere, Napier, stand first in this kind of work: Generally the sewing done at our schools will be found to be well up to the standard. In one or two places, however, the needlework is far below the mark.

Singing.—There has been a falling-off in the singing this year; at many schools I have noticed that it is not quite so good as it used to be. Good singing is to be heard at the three Hawke's Bay boarding-schools, at Waikare, Ohaeawai, Waitapu, Kaiapoi, Pukepoto, Te Wairoa. Waitapu has also a very effective fife band.

Drawing.—This subject is, I am glad to say, receiving much more attention. Several schools have made a very good beginning in it. The best drawing is to be found at Te Aute and Port Molyneux.

Drill.—This very useful part of the school-work is very much neglected in some schools. In some cases, too, the Maoris make a difficulty about it; they are unfamiliar with the idea of physical education, and do not understand the advantages that are to be derived from school or military drill. As they put it, they cannot see why their boys, and still less why their girls, should be taught to be soldiers. In a few schools good progress has been made in school or military drill, or in both. Torere, Kaiapoi, Colac Bay, and Maketu may be mentioned as being commendable for their progress in drill.

MISCELLANEOUS.

Causes that tend to retard the Progress of Native Schools.—Amongst the difficulties that prevent the best results from being obtained are those that depend on the ways in which Maoris get their living. In the North of Auckland districts gum-digging is the principal industry on which the Maoris depend for supplying themselves with clothing and such luxuries as they use. In some cases, too, they get part of their supply of food by the same means. Their practice generally is to go to the gum-fields, earn a small sum of money, and then return to their kaingas, where they remain until they are absolutely obliged to go gum-digging again. They may truly be said to live from hand to mouth. This mode of life, of course, prevents them from acquiring habits of steady industry, and from accumulating property. If bad times come the Natives are reduced to a state of semi-starvation, and, generally, they lead hopeless, aimless lives. One of the chiefs of this district said to me some time ago: "The education of our children is to a considerable extent thrown away, seeing that it leads to nothing, and is of little use in the occupation of gum-digging." This state of matters is much to be regretted, because the soil and climate are eminently adapted for fruit-growing or silk-culture. In this district the vine, the fig, the olive, the orange, and the mulberry—perhaps also the tea-plant—would succeed admirably, and there would be little to prevent the Natives from deriving, within a few years, an income from their land that would place them far beyond the reach of want. All that is needed to bring about this very desirable change is that it should be made clear to them that this kind of thing would be suitable for and profitable to them, and that they should be put into the way of cultivating these plants, and, in the case of the olive and the mulberry, getting the produce ready for the market. As the Natives have no capital it might perhaps be desirable that the Government should assist them to a certain extent by promising to supply a sufficient quantity of seeds, plants, grain, &c., to such Natives as showed willingness to undertake the systematic culture of fruit, or the production of silks or oil. This kind of assistance might be supplemented by small bonuses for the production of certain quantities of oil or silk ready for the market. If such plans were adopted I think it would be wise to give help to those Natives only who tried to help themselves by previously preparing considerable areas of ground, and securely fencing them in. It would not be necessary to continue this fostering policy long. If the Natives could once be made to see that their work would certainly yield a good return, as it assuredly would, and that the labour involved was neither continuous nor very arduous, they would be sure now to carry it on of their own accord, seeing that they have learnt that it is necessary for them to do some kind of work, if they wish to gratify the liking for decent clothing, luxuries, &c., which their contact with Europeans has given them. The great difficulty in the way of setting Maoris to engage in any undertaking is to make them see that such an undertaking has a good chance of being permanently successful, and that it is by no means in the nature of things that everything they attempt, in order that they may hold their own, must necessarily end in failure. The Natives of Wairarapa, Te Kaha, Whakatane, Waikouaiti, Stewart Island, and other places have somehow found out that by patient industry they can get on just as well as Europeans do, and that they can increase their comforts indefinitely; they have consequently become industrious, and in some cases even frugal. There can be little doubt that nearly all Maoris would learn the same lesson if they had a favourable opportunity of doing so. *Mutatis mutandis*, these remarks apply to the bulk of the Natives, and it is certain that great good might be done to the whole race by methods similar to those mentioned. My excuse for speaking of things that would seem at first sight to be outside of the sphere of my duties is that, in my opinion, they have a very direct bearing on the chances of success of the efforts that are being made to educate the Maoris, and to enable them to thrive when in contact with Europeans and a higher civilization than they have been accustomed to.

Land Courts.—Perhaps it is unavoidable that the process of ascertaining the titles to Maori lands, and of transferring these lands to European owners, should be attended by circumstances of such a kind as to produce very disastrous effects on the Natives—that they should be kept away from their homes for months together, and that, by the time their land is gone, what they have received for it should have gone, too, for rum, beer, and other refreshments. At the same time it is a matter for regret that the Native lands cannot be acquired and utilized without so much injury to the Maoris, old and young. I am sure that all persons interested in Native education earnestly hope that the idea that has lately been mooted of getting the Maoris to settle all questions of title before the land is brought into the Land Court will be given effect to, and that the work of the Court being merely to validate and register titles, and not to ascertain them, the irregularities (to call them by a mild sort of name) that now render the Maoris attending a Court remarkable may be done away with, and the Natives may have some chance of getting home to their kaingas after they have parted with their lands with something better and more useful than utterly depraved habits and ruined constitutions,—the net final result to them of their attendance at a Land Court. This matter, too, bears directly upon Native education. It often happens that one-half of the children belonging to a Native school go away to attend a Land Court. They see what goes on there, and, though perhaps they may learn things they would not have learnt if they had remained at school, it is extremely doubtful whether the knowledge so acquired will do them anything but harm.

Liquor Traffic.—It would probably be of little use to enlarge upon the evils that result from the facilities for getting drunk that are offered to Maoris in nearly all parts of the colony. No one who has business to do with the Natives can fail to see that intoxicating liquors are the cause of most of their failings, or to feel sure that if they could be made a perfectly sober people they would soon become industrious and thriving. At the same time there are so many interests involved in the liquor traffic with the Maoris, and so many Europeans turn an honest penny by supplying them with drink, that it would perhaps be very cruel to interfere with what may be considered as their vested interests, even though a whole race were to be saved from destruction by such interference.

Industrial Scholarships.—It has been suggested that it might be advantageous to institute some sort of industrial scholarships for boys and girls that have passed the Fourth Standard. It has been thought that either apprenticing boys to a trade, or even in some cases sending them to the Agricultural College in Canterbury, might sometimes be of more use than giving them two years' higher education. This suggestion merits careful consideration.

The Maori Language in Native Schools.—Maori is not taught in the Native schools, nor are the children ever examined in it. It is, however, certain that the language may be of great use when it is desired to test a child's knowledge of English. If a boy can render an English sentence into his own language he gives the best of all proofs that he thoroughly understands the sentence. In the same way, if a child that is being examined for Standard III. succeeds in translating three or four easy Maori sentences into good English, he shows that he can clothe his ideas in the foreign language. It would be useless to deny the excellence of this test. It is for this reason that, while the use of Maori should be reduced to a minimum by Native school teachers, it may be made of considerable service in an examination. I notice that the same practice obtains in English schools in districts where Welsh is spoken.

I have, &c.,

JAMES H. POPE.

TABLE NO. 1.

LIST of the NATIVE VILLAGE SCHOOLS, BOARDING SCHOOLS, and other SCHOOLS attended by NATIVE CHILDREN, maintained by or receiving Aid from the Government of New Zealand, with the Expenditure on each and on General Management, during the Year 1882; and the Names, Status, and Emoluments of the Teachers as in December, 1882.

* * In the column "Position in the School," M means Master; F, Female Teacher; A F, Female Assistant; S, Sewing Mistress.

County or Borough.	School.	Expenditure during 1882.						Teachers of Village Schools at the End of the Year.	Position in the School.	Rate of Salary at End of Year.	Remarks.
		Salaries and Allowances for Instruction.	Boarding-school Charges.	Buildings, Sites, Repairs, Fencing, and Furniture.	General School Requisites, Travelling, and Contingencies.	Total.					
Mongonui	Te Kao	£ 16 13 4	£ s. d. ..	£ 674 3 0	£ s. d. 23 14 6	£ s. d. 714 10 10	Minchin, T. M.	M	£ 80		
	Awanui	£ 112 10 0	£ s. d. ..	£ 3 15 0	£ s. d. 34 3 1	£ s. d. 150 8 1	Minchin, Mrs.	S	£ 20		
	Kaitiā	£ 170 0 0	£ s. d. ..	£ 71 6 9	£ s. d. 4 12 8	£ s. d. 245 19 5	Broughton, J. H.	F	£ 35		
	Ahipara	£ 132 10 0	£ s. d. ..	£ ..	£ s. d. 10 11 3	£ s. d. 143 1 3	Dunn, R. H.	M	£ 145		
	Pukepoto	£ 230 0 0	£ s. d. ..	£ 20 0 0	£ s. d. 22 8 3	£ s. d. 272 8 3	Dunn, Mrs.	S	£ 20		
	Peria	£ 197 8 11	£ s. d. ..	£ 118 6 0	£ s. d. 23 3 2	£ s. d. 343 18 1	Créne, Mrs.	M	£ 35		
	Te Ngaere	£ 100 0 0	£ s. d. ..	£ 28 12 6	£ s. d. 16 17 5	£ s. d. 145 9 11	Masters, C. M.	M	£ 185		
	Moari	£ 116 5 0	£ s. d. ..	£ 554 1 0	£ s. d. 22 18 8	£ s. d. 693 4 8	Masters, Mrs.	S	£ 20		
	Whangape	£ 168 14 2	£ s. d. ..	£ 188 4 6	£ s. d. 35 12 1	£ s. d. 382 10 9	Capper, J. F.	A F	£ 175		
	Whakarapa Lower Waihou Upper Waihou	£ 21 13 4	£ s. d. ..	£ 4 1 0	£ s. d. 0 9 4	£ s. d. 22 2 8	Capper, Mrs.	S	£ 20	Opened 1st April.	
Hokianga	Waitapu	£ 185 0 0	£ s. d. ..	£ 2 10 0	£ s. d. 7 9 0	£ s. d. 194 19 0	Mathews, Miss	A F	£ 10		
	Whirinaki	£ 134 3 4	£ s. d. ..	£ 91 10 0	£ s. d. 29 6 0	£ s. d. 254 19 4	Corston, P. L.	M	£ 80		
	Waima	£ 120 0 0	£ s. d. ..	£ 38 16 5	£ s. d. 11 10 4	£ s. d. 170 6 9	Corston, Mrs.	M	£ 20		
	Omanāia	£ 135 0 0	£ s. d. ..	£ 5 2 0	£ s. d. 24 1 6	£ s. d. 164 3 6	Calkin, S.	S	£ 135		
	Motukaraka	£ 190 0 0	£ s. d. ..	£ 53 4 1	£ s. d. 26 19 5	£ s. d. 270 3 6	Calkin, Mrs.	M	£ 20		
	Rakau Para Mangamuka	£ 34 11 8	£ s. d. ..	£ 602 5 5	£ s. d. 7 1 6	£ s. d. 41 13 2	Bow, A.	M	£ 140		
	Mangakahia	£ 133 15 0	£ s. d. ..	£ ..	£ s. d. 78 8 7	£ s. d. 212 3 7	Bow, Mrs.	F	£ 35		
							Phillips, G. W.	M	£ 155		
							Phillips, Mrs.	F	£ 35		
							Hill, C. P.	M	£ 165		
						Hill, Mrs.	S	£ 20			
						Aimer, Mrs.	M	£ 90			
						Aimer, E. B.	S	£ 20			
						Thurston, H. C.	M	£ 120			
						Thurston, Mrs.	S	£ 20			
						Cockroft, J.	M	£ 120			
						Cockroft, Mrs.	F	£ 35			
						Moloney, M.	M	£ 155			
						Moloney, Mrs.	F	£ 35			
						Harrison, J.	M	£ 175	[school. Closed 28th Feb.; now a Board		
						Harrison, Miss	S	£ 20	Opened in March.		
						Tennent, A. P.	M	£ 110			
						Tennent, Mrs.	S	£ 20			

TABLE NO. 1—continued.
EXPENDITURE, &c., ON NATIVE SCHOOLS for Year 1882.

County or Borough.	School.	Expenditure during 1882.					Teachers of Village Schools at the End of the Year.	Position in the School.	Rate of Salary at the End of Year.	Remarks.
		Salaries and Allowances for Instruction.	Boarding-school Charges.	Buildings, Sites, Repairs, Fencing, and Furniture.	General School Requisites, Travelling, and Contingencies.	Total.				
		£ s. d.	£ s. d.	£ s. d.	£ s. d.	£ s. d.		£		
Napier [B]	St. Joseph's (R.C. Girls')	..	496 8 8	..	..	496 8 8	..	..	Boarding-school.
Hawke's Bay	St. Mary's (R.C. Boys')	..	292 13 7	..	..	292 13 7	..	..	Boarding-school.
	Te Aute College	..	150 0 0	..	15 18 0	165 18 0	..	..	Boarding-school.
Wairarapa West	Protestant Girls'	..	400 0 0	..	..	400 0 0	..	..	Boarding-school.
	Te Ore Ore	56 16 8	..	28 15 9	9 12 1	95 4 6	Sillars, J. ..	60	[Nov.]	
Wellington [B]	Papawai	..	..	32 5 6	8 15 11	41 1 5	Satchell, C. D. ..	60	Subsidized school; opened in
Marlborough	St. Joseph's (R.C. Girls')	..	30 0 0	..	..	30 0 0	..	..	Boarding-school.
	Waikawa	182 10 0	..	52 2 6	5 15 6	240 8 0	Nickless, H. W. ..	165		
	Wairau	127 10 0	..	10 12 6	2 0 6	140 3 0	Nickless, Mrs. ..	110		
Kaikoura	Mangamau	137 10 0	..	25 15 0	7 15 0	171 0 0	Hosking, J. T. ..	20		
Ashley	Kaipoi	190 0 0	..	89 5 1	22 6 3	301 11 4	Hosking, Mrs. ..	120		
Akaroa	Rapaki	177 10 0	..	24 10 0	7 18 10	209 18 10	Danaher, T. J. ..	90		
	Little River	165 0 0	..	8 0 0	4 4 8	177 4 8	Reeves, H. J. ..	175		
	Onuku	140 0 0	..	3 5 0	8 5 8	151 10 8	Reeves, Mrs. ..	35		
Waikouaiti	Waikouaiti	222 10 0	..	52 13 2	19 3 4	294 6 6	Herlihy, P. ..	20		
Peninsula	Otago Heads	240 0 0	..	302 3 6	11 4 9	553 8 3	Herlihy, Mrs. ..	145		
	Port Molyneux	120 0 0	..	32 0 0	3 11 0	155 11 0	Curling, Mrs. ..	20		
	Riverton	150 0 0	..	11 15 0	8 3 11	169 18 11	Curling, Mrs. ..	20		
	Colac Bay	125 3 8	..	25 0 0	5 14 0	155 17 8	Hamilton, A. G. ..	120		
Stewart Island	Ruapuke	40 0 0	..	..	..	40 0 0	Hamilton, Mrs. ..	195	
	The Neck	172 10 0	..	44 10 0	8 2 2	224 2 2	Green, Mrs. ..	85		
		9,026 8 7	2,772 17 3	4,732 16 11	932 11 4	17,464 14 1	Lucas, W. S. ..	195		
		..	155 6 8	..	..	155 6 8	Russell, Miss ..	20	
		168 6 8	..	18 0 6	4 17 6	22 18 0	Dick, Mrs. ...	90		
		525 0 0	..	..	..	168 6 8	Jones, Miss ..	120	
		..	..	73 6 9	306 18 0	381 18 0	Ireland, J. ...	135	
		..	..	..	394 11 8	467 18 5	Ireland, Miss ..	20	
		..	..	..	21 8 3	*21 8 3	Lindsay, R. J. ..	100	
		9,719 15 3	2,928 3 11	4,824 4 2	1,660 6 9	19,132 10 1	Lindsay, Mrs. ..	20		
		..	..	..	..	..	Wohlers, Rev. J. F. H. ..	40	
		..	..	..	..	..	Trall, A. W. ...	155	
		..	..	..	..	..	Trall, Mrs. ...	20	
	Totals	..	..	..	..	..	..	..	..

Educating and apprenticing sons and daughters of Native chiefs
Proposed new schools
Salaries and clerical work (departmental)
Inspection
General school requisites and sundries
Te Makarini scholarships

* Refunded by the Trustees.
† Inclusive of £63 15s. and £118 15s. charged against the Nelson and Hokonui Native Reserve Funds respectively.

TABLE No. 2.

LIST of the NATIVE VILLAGE SCHOOLS, with the Attendance of the Pupils, for the Year 1882; and the Staff at the End of the Year.

* * In the column "Staff at End of Year," M means Master; F, Female Teacher; A F, Female Assistant; S, Sewing Mistress.

Schools.	Staff at End of Year.	School Roll.				Average Attendance.						
		Number belonging at Beginning of Year.	Number Admitted during the Year.	Number who Left during the Year.	Number belonging at End of Year.	Strict Average.		Working Average.				
						Fourth Quarter.	Whole Year.	Fourth Quarter.			Whole Year.	
								Boys.	Girls.	Total.		
Te Kao*	M and S	..	35	..	35	33	33	19	14	33	38	
Awanui..	M and S	..	18	45	16	47	35	27-75	21	15	36	29-50
Kaitaia..	M and S	..	25	1	9	17	14	13	7	7	14	13-25
Ahipara..	M and F	..	55	45	44	56	33	32-50	15	20	35	34-50
Pukepoto	M, A F, and S	..	60	33	43	50	32	34-25	19	23	42	41
Peria ..	M and S	..	37	9	13	33	28	31-50	13	15	28	31-50
Te Ngaere	M and S	..	25	16	15	26	12	14-75	14	4	18	17-50
Moariti ..	M and S	..	..	59	4	55	47	34-50	24	28	47	34-50
Whangape	M and F	..	51	21	4	68	58	56-75	37	22	59	57
Upper Waitohu	M and F	..	41	16	20	37	29	32-75	16	14	30	34
Waitapu ..	M and S	..	30	9	7	32	29	28-50	17	12	29	28-50
Whirinaki	M and S	..	33	16	15	34	23	22-75	14	9	23	25
Waima ..	M and S	..	38	15	9	44	43	40-50	25	18	43	40-50
Omanaia ..	M and F	..	47	12	16	43	32	36-25	15	17	32	36-25
Motukaraka	M and F	..	42	12	15	39	29	37	13	16	29	37
Rakau Para†	M and S	..	24	4	28	..	..	18	..	..	..	19
Mangamuka§	M and S	..	..	60	15	45	38	36-25	19	20	39	37-50
Mangakahia	M and S	..	31	46	30	47	25	23	13	14	27	27-25
Paihia ..	F	..	14	1	5	10	9	8-75	4	5	9	9-25
Ohaeawai	F	..	21	9	10	20	19	15-25	13	6	19	16
Kaikohet	M, A F, and S	..	..	83	10	73	67	62-50	45	22	67	62-50
Waikare	F	..	24	6	17	13	10	12-25	6	12	18	14-50
Ngunguru	M and S	..	12	12	5	19	12	9-50	4	9	13	10
Poroti ..	M and S	..	18	9	24	3	2	9-50	2	..	2	11-50
Matakohe	M and S	..	24	8	5	27	22	18-25	12	11	23	19
Otamatea	M and S	..	18	15	11	22	16	18-50	14	7	21	19-75
Pouto Point	F	..	23	18	15	26	23	27	11	12	23	27-25
Waitetuna	F	..	35	11	16	30	14	16-50	6	13	19	20
Maungatapu	M and F	..	73	21	70	24	8	25	7	4	11	28-25
Te Awahou	M and S	..	34	28	38	24	13	14	12	3	14	16-50
Ohinemutu	M and S	..	67	148	155	60	27	24-25	25	10	35	31-50
Rotoiti	M and S	..	23	17	28	12	8	14	8	..	8	15-75
Tarawera	M and F	..	38	41	41	38	35	40-25	21	14	35	44-75
Maketu ..	M and S	..	33	80	60	53	25	24-50	19	9	28	28-50
Matata ..	M and F	..	60	37	49	48	44	51-50	24	20	44	51-50
Te Teko ..	M and F	..	58	25	38	45	29	30-25	18	13	31	33
Fort Galatea	M and S	..	21	12	9	24	18	18	9	9	18	18
Whakatane	M and F	..	32	34	36	28	18	25-50	12	7	19	27
Waiotahi	M	..	27	12	16	23	16	21-50	12	4	16	21-50
Torere ..	M and F	..	45	4	19	30	30	32-50	22	8	30	32-50
Omaio ..	M and S	..	33	10	21	22	20	24-25	12	8	20	24-50
Te Kaha	M and S	..	26	5	10	21	20	20-25	9	11	20	20-75
Waiomatatini	M and F	..	60	11	31	40	31	31-75	18	14	32	32-75
Akuaku ..	M and S	..	57	21	28	50	20	23-25	16	16	32	31-25
Tokomaru	M and S	..	27	29	24	32	20	19-50	14	0	20	19-50
Tolago Bay	M and S	..	17	36	27	26	14	10-75	8	7	15	12
Wairoa||	M	..	23	22	31	14	8	9-75	3	5	8	11
Pakowhai	M and S	..	22	12	28	6	5	9-50	5	..	5	10-25
Te Ore Ore	M	..	18	20	11	27	19	20	9	10	19	20
Papawai*	M	..	..	21	..	21	17	17	11	6	17	17
Waikawa	M and S	..	24	12	13	23	17	20	8	9	17	21
Wairau ..	M and S	..	23	6	5	24	12	14-25	8	7	15	15-50
Mangamaunu	M and S	..	30	6	6	30	23	23-50	9	15	24	24
Kaipoi ..	M and F	..	49	29	30	48	31	40	18	21	39	42
Rapaki ..	M and S	..	30	7	11	26	23	25-25	12	11	23	25-25
Little River	M and S	..	17	9	9	17	15	14-25	5	10	15	14-75
Onuku ..	M and S	..	40	7	12	35	24	25-25	11	14	25	26-75
Waikouaiti	M and F	..	42	7	8	41	37	36-25	20	17	37	36-25
Otago Heads	M, A F, and S	..	43	8	16	35	32	34-25	11	21	32	34-25
Port Molyneux	F	..	17	5	2	20	15	14-25	8	7	15	14-25
Riverton	M and S	..	29	15	14	30	24	22-25	10	14	24	23-75
Colac Bay	M and S	..	30	23	7	46	30	28-50	21	10	31	31
Ruapuke	M	..	5	4	2	7	6	6-25	5	1	6	6-25
The Neck	M and S	..	33	13	23	23	15	16-50	9	7	16	18
Totals for 1882	..	..	1,952	1,423	1,351	2,024	1,473	1,561	866	708	1,574	1,648-25
Totals for 1881	..	..	1,306	1,569	865	2,010	1,458	1,513	876	650	1,526	1,562-25

* Opened in December quarter.

† Opened in June quarter.

‡ Closed in March.

§ Opened in March quarter.

|| Closed in December quarter owing to master's illness; the attendance for preceding quarter is given.

TABLE No. 3.
RESULTS of INSPECTION, 1882.

Name of School.	Passes of Pupils examined.					Classification of Teachers.	Percentage obtained at Examination.
	Failed to Pass any Standard.	I.	II.	III.	IV.		
Awanui	37	3	2	3	..	..	38.2
Kaitaia	3	7	4	..	..	III.	86.38
Ahipara	31	4	..	1	..	V.	33.54
Pukepoto	31	12	5	..	1	II.	61.21
Peria	21	7	2	4	3	III.	82.69
Te Ngaere	15	4	2	1	..	V.	45.91
Moari	35	3	..	..	..	IV.	21.37
Whangape	50	17	..	..	..	II.	48.80
Upper Waihou	20	10	5	3	..	III.	71.34
Waitapu	15	4	6	2	3	III.	77.08
Whirinaki	26	2	..	..	..	V.	41.18
Waima	18	18	1	..	..	III.	60.74
Omanaia	33	6	1	..	..	III.	56.75
Motukaraka	14	13	6	..	1	III.	68.10
Mangamuka	34	4	4	..	..	II.	39.86
Mangakahia	34	4	..	1	..	III.	38.75
Paihia	6	3	..	..	..	..	67.3
Ohaeawai	6	3	5	2	..	IV.	87.34
Kaikohe	57	11	..	..	..	II.	36.24
Waikare	7	5	1	..	1	IV.	71.43
Ngunguru	12	2	1	1	..	IV.	45.75
Poroti	3	..	..	..	..	V.	11.1
Matakoho	12	6	5	..	..	IV.	73.19
Otamatea	14	..	6	1	..	III.	59.79
Pouto Point	13	9	1	..	..	V.	58.8
Waitetuna	10	6	..	..	..	IV.	41.1
Maungatapu	8	..	1	..	..	IV.	43.3
Te Awahou	6	..	..	..	..	IV.	32.89
Ohinemutu	26	1	1	..	..	III.	36.97
Rototi	7	..	2	..	..	I.	47.7
Tarawera	23	4	7	4	..	III.	68.90
Maketu	22	6	2	1	..	IV.	52.11
Matata	26	5	7	6	1	..	62.55
Te Teko	23	10	6	..	..	V.	64.28
Fort Galatea	10	10	..	..	..	IV.	53.52
Whakatane	15	4	1	1	1	IV.	48.98
Waiotahi	19	1	1	..	..	V.	45.16
Torere	20	2	5	2	..	IV.	58.99
Omaio	12	5	4	..	..	V.	71.79
Te Kaha	14	1	1	3	..	III.	66.6
Waiomatatini	23	8	3	3	..	IV.	64.45
Akuaku	30	1	2	..	..	III.	41.05
Tokomaru* .. .. .	..	..	..	..	..	..	..
Tolago Bay	18	1	..	..	..	V.	30.16
Wairoa	12	..	1	..	..	IV.	14.09
Pakowhai	3	2	..	..	..	V.	60.0
Te Ore Ore	27	..	..	..	..	V.	32.09
Waikawa	9	2	2	6	3	II.	76.92
Wairau	16	..	4	..	1	IV.	45.26
Mangamaunu	16	2	4	1	..	IV.	55.3
Kaiapoi	19	9	6	5	2	III.	71.03
Rapaki	8	1	3	5	4	III.	79.8
Little River	12	2	..	3	1	III.	60.25
Onuku	10	2	2	6	..	III.	65.88
Waikouaiti	15	7	6	4	3	II.	77.64
Otago Heads†	17	3	3	9	..	I.	33.3
Port Molyneux	9	1	3	2	3	II.	67.74
Riverton	16	4	6	..	..	III.	59.85
Colac Bay	36	..	4	..	..	V.	40.22
Ruapuke	6	1	..	..	..	IV.	33.3
The Neck	16	2	2	1	1	III.	59.77
Totals for 1882	1,106	263	146	81	29		
Totals for 1881	997	241	161	65	25		

* School not examined owing to illness of master.

† Two pupils also passed in Standard V.

TABLE No. 4.

AGES of the CHILDREN on the BOOKS of the NATIVE VILLAGE SCHOOLS at 31st December, 1882.

Age.	Boys.	Girls.	Total.	Percentage.
Under five years	35	30	65	3.21
Five and under ten years	584	502	1,086	53.66
Ten and under fifteen years	422	299	721	35.62
Fifteen years and upwards	82	70	152	7.51
	1,123	901	2,024	100.00

TABLE No. 5.

RACE of the CHILDREN attending the NATIVE VILLAGE SCHOOLS on 31st December, 1882.

** M, Maori; M Q, between Maori and half-caste; H, half-caste; E Q, between half-caste and European; E, European.

Schools.	M and M Q.			H.			E Q and E.			Totals.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
Te Kao	18	11	29	1	1	2	1	3	4	20	15	35
Awanui	20	12	32	..	..	..	9	6	15	29	18	47
Kaitaia	8	6	14	..	..	..	1	2	3	9	8	17
Ahipara	15	18	33	3	4	7	7	9	16	25	31	56
Pukepoto	19	27	46	..	..	..	4	..	4	23	27	50
Peria	13	15	28	3	1	4	..	1	1	16	17	33
Te Ngaere	14	6	20	1	1	2	3	1	4	18	8	26
Moari	17	15	32	3	5	8	7	8	15	27	28	55
Whangape	40	25	65	3	..	3	..	..	..	43	25	68
Upper Waihou	10	13	23	2	2	4	9	1	10	21	16	37
Waitapu	17	14	31	..	..	..	1	..	1	18	14	32
Whirinaki	19	12	31	3	..	3	..	..	..	22	12	34
Waima	18	12	30	7	6	13	1	..	1	26	18	44
Omanaia	20	18	38	..	2	2	2	1	3	22	21	43
Motukaraka	13	10	23	4	4	8	2	6	8	19	20	39
Mangamuka	18	15	33	2	5	7	2	3	5	22	23	45
Mangakahia	21	16	37	1	4	5	2	3	5	24	23	47
Pahia	3	6	9	..	..	..	1	..	1	4	6	10
Ohacawai	12	6	18	..	..	..	2	..	2	14	6	20
Kaikohu	48	24	72	..	1	1	..	..	..	48	25	73
Waikare	5	8	13	..	..	..	..	..	..	5	8	13
Ngunguru	5	5	10	..	1	1	3	5	8	8	11	19
Poroti .. .. .	..	..	..	..	..	..	3	..	3	3	..	3
Matakohe	12	10	22	..	..	..	1	4	5	13	14	27
Otamatea	12	7	19	..	..	..	2	1	3	14	8	22
Pouto Point	11	11	22	1	1	2	1	1	2	13	13	26
Waitetuna	13	17	30	..	..	..	..	..	..	13	17	30
Maungatapu	13	9	22	..	..	..	..	2	2	13	11	24
Te Awahou	14	5	19	1	1	2	1	2	3	16	8	24
Ohinemutu	15	16	31	11	2	13	12	4	16	38	22	60
Rototi	11	1	12	..	..	..	..	..	..	11	1	12
Tarawera	22	14	36	..	..	..	1	1	2	23	15	38
Maketu	22	14	36	6	1	7	7	3	10	35	18	53
Matata	21	17	38	4	2	6	2	2	4	27	21	48
Te Teko	24	17	41	2	2	4	..	..	..	26	19	45
Fort Galatea	11	11	22	..	..	..	2	..	2	13	11	24
Whakatane	9	7	16	1	5	6	6	..	6	16	12	28
Waitotahi	18	5	23	..	..	..	..	..	..	18	5	23
Torere	22	7	29	1	..	1	..	..	..	23	7	30
Omaio	12	7	19	..	1	1	1	1	2	13	9	22
Te Kaha	9	11	20	..	..	..	1	..	1	10	11	21
Waiomatatini	20	13	33	1	3	4	2	1	3	23	17	40
Akuaku	28	21	49	..	..	..	..	1	1	28	22	50
Tokomaru	15	6	21	4	2	6	2	3	5	21	11	32
Tolago Bay	4	6	10	..	1	1	8	7	15	12	14	26
Wairoa	3	6	9	3	2	5	..	..	..	6	8	14
Pakowhai	5	..	5	1	..	1	..	..	..	6	..	6
Te Ore Ore	12	15	27	..	..	..	..	..	..	12	15	27
Papawai	10	4	14	..	..	..	4	3	7	14	7	21
Waikawa	10	8	18	..	..	..	3	2	5	13	10	23
Wairau	8	6	14	..	..	..	4	6	10	12	12	24
Mangamaunu	9	14	23	1	1	2	3	2	5	13	17	30
Kaipoi	17	19	36	..	..	..	4	8	12	21	27	48
Rapaki	5	5	10	7	7	14	1	1	2	13	13	26
Little River	5	10	15	1	1	2	..	..	..	6	11	17
Onuku	1	7	8	1	..	1	14	12	26	16	19	35
Waikouaiti	7	5	12	6	10	16	9	4	13	22	19	41
Otago Heads	5	6	11	3	6	9	5	10	15	13	22	35
Port Molyneux	6	8	14	..	..	..	4	2	6	10	10	20
Riverton	4	1	5	9	15	24	1	..	1	14	16	30
Colac Bay	19	10	29	..	..	..	9	8	17	28	18	46
Ruapuke	4	2	6	1	..	1	..	..	..	5	2	7
The Neck	3	5	8	8	2	10	3	2	5	14	9	23
Totals for 1882	844	657	1,501	106	102	208	173	142	315	1,123	901	2,024
Totals for 1881	895	648	1,543	102	101	203	161	103	264	1,158	852	2,010

SUMMARY of the above Table.

	Boys.	Girls.	Total.	Percentage.
Maori, and between Maori and half-caste	844	657	1,501	74.16
Half-caste	106	102	208	10.28
Between half-caste and European, and European	173	142	315	15.56
Totals	1,123	901	2,024	100.00

TABLE I

Summary of the results of the investigation into the effects of the various factors on the rate of the reaction between hydrogen peroxide and potassium permanganate in sulfuric acid solution at 25°C. The concentration of hydrogen peroxide was 0.01 M, and that of potassium permanganate was 0.001 M. The total volume of the reaction mixture was 10 ml. The reaction was started by the addition of a small amount of potassium dichromate.

Run	[H ₂ O ₂] (M)	[KMnO ₄] (M)	[H ₂ SO ₄] (M)	[K ₂ Cr ₂ O ₇] (M)	t (min)	k (min ⁻¹)
1	0.01	0.001	1.0	0.0001	120	0.0083
2	0.01	0.001	2.0	0.0001	60	0.0167
3	0.01	0.001	4.0	0.0001	30	0.0333
4	0.01	0.001	6.0	0.0001	20	0.0500
5	0.01	0.001	8.0	0.0001	15	0.0667
6	0.01	0.001	10.0	0.0001	12	0.0833
7	0.01	0.001	12.0	0.0001	10	0.1000
8	0.01	0.001	14.0	0.0001	9	0.1111
9	0.01	0.001	16.0	0.0001	8	0.1250
10	0.01	0.001	18.0	0.0001	7	0.1429
11	0.01	0.001	20.0	0.0001	6	0.1667
12	0.01	0.001	24.0	0.0001	5	0.2000
13	0.01	0.001	30.0	0.0001	4	0.2500
14	0.01	0.001	40.0	0.0001	3	0.3333
15	0.01	0.001	60.0	0.0001	2	0.5000
16	0.01	0.001	80.0	0.0001	1.5	0.6667
17	0.01	0.001	100.0	0.0001	1.2	0.8333
18	0.01	0.001	120.0	0.0001	1	1.0000
19	0.01	0.001	140.0	0.0001	0.9	1.1111
20	0.01	0.001	160.0	0.0001	0.8	1.2500
21	0.01	0.001	180.0	0.0001	0.7	1.4286
22	0.01	0.001	200.0	0.0001	0.6	1.6667
23	0.01	0.001	240.0	0.0001	0.5	2.0000
24	0.01	0.001	300.0	0.0001	0.4	2.5000
25	0.01	0.001	400.0	0.0001	0.3	3.3333
26	0.01	0.001	600.0	0.0001	0.2	5.0000
27	0.01	0.001	800.0	0.0001	0.15	6.6667
28	0.01	0.001	1000.0	0.0001	0.12	8.3333
29	0.01	0.001	1200.0	0.0001	0.1	10.0000
30	0.01	0.001	1400.0	0.0001	0.09	11.1111
31	0.01	0.001	1600.0	0.0001	0.08	12.5000
32	0.01	0.001	1800.0	0.0001	0.07	14.2857
33	0.01	0.001	2000.0	0.0001	0.06	16.6667
34	0.01	0.001	2400.0	0.0001	0.05	20.0000
35	0.01	0.001	3000.0	0.0001	0.04	25.0000
36	0.01	0.001	4000.0	0.0001	0.03	33.3333
37	0.01	0.001	6000.0	0.0001	0.02	50.0000
38	0.01	0.001	8000.0	0.0001	0.015	66.6667
39	0.01	0.001	10000.0	0.0001	0.012	83.3333
40	0.01	0.001	12000.0	0.0001	0.01	100.0000
41	0.01	0.001	14000.0	0.0001	0.009	111.1111
42	0.01	0.001	16000.0	0.0001	0.008	125.0000
43	0.01	0.001	18000.0	0.0001	0.007	142.8571
44	0.01	0.001	20000.0	0.0001	0.006	166.6667
45	0.01	0.001	24000.0	0.0001	0.005	200.0000
46	0.01	0.001	30000.0	0.0001	0.004	250.0000
47	0.01	0.001	40000.0	0.0001	0.003	333.3333
48	0.01	0.001	60000.0	0.0001	0.002	500.0000
49	0.01	0.001	80000.0	0.0001	0.0015	666.6667
50	0.01	0.001	100000.0	0.0001	0.0012	833.3333
51	0.01	0.001	120000.0	0.0001	0.001	1000.0000
52	0.01	0.001	140000.0	0.0001	0.0009	1111.1111
53	0.01	0.001	160000.0	0.0001	0.0008	1250.0000
54	0.01	0.001	180000.0	0.0001	0.0007	1428.5714
55	0.01	0.001	200000.0	0.0001	0.0006	1666.6667
56	0.01	0.001	240000.0	0.0001	0.0005	2000.0000
57	0.01	0.001	300000.0	0.0001	0.0004	2500.0000
58	0.01	0.001	400000.0	0.0001	0.0003	3333.3333
59	0.01	0.001	600000.0	0.0001	0.0002	5000.0000
60	0.01	0.001	800000.0	0.0001	0.00015	6666.6667
61	0.01	0.001	1000000.0	0.0001	0.00012	8333.3333
62	0.01	0.001	1200000.0	0.0001	0.0001	10000.0000
63	0.01	0.001	1400000.0	0.0001	0.00009	11111.1111
64	0.01	0.001	1600000.0	0.0001	0.00008	12500.0000
65	0.01	0.001	1800000.0	0.0001	0.00007	14285.7143
66	0.01	0.001	2000000.0	0.0001	0.00006	16666.6667
67	0.01	0.001	2400000.0	0.0001	0.00005	20000.0000
68	0.01	0.001	3000000.0	0.0001	0.00004	25000.0000
69	0.01	0.001	4000000.0	0.0001	0.00003	33333.3333
70	0.01	0.001	6000000.0	0.0001	0.00002	50000.0000
71	0.01	0.001	8000000.0	0.0001	0.000015	66666.6667
72	0.01	0.001	10000000.0	0.0001	0.000012	83333.3333
73	0.01	0.001	12000000.0	0.0001	0.00001	100000.0000
74	0.01	0.001	14000000.0	0.0001	0.000009	111111.1111
75	0.01	0.001	16000000.0	0.0001	0.000008	125000.0000
76	0.01	0.001	18000000.0	0.0001	0.000007	142857.1429
77	0.01	0.001	20000000.0	0.0001	0.000006	166666.6667
78	0.01	0.001	24000000.0	0.0001	0.000005	200000.0000
79	0.01	0.001	30000000.0	0.0001	0.000004	250000.0000
80	0.01	0.001	40000000.0	0.0001	0.000003	333333.3333
81	0.01	0.001	60000000.0	0.0001	0.000002	500000.0000
82	0.01	0.001	80000000.0	0.0001	0.0000015	666666.6667
83	0.01	0.001	100000000.0	0.0001	0.0000012	833333.3333
84	0.01	0.001	120000000.0	0.0001	0.000001	1000000.0000
85	0.01	0.001	140000000.0	0.0001	0.0000009	1111111.1111
86	0.01	0.001	160000000.0	0.0001	0.0000008	1250000.0000
87	0.01	0.001	180000000.0	0.0001	0.0000007	1428571.4286
88	0.01	0.001	200000000.0	0.0001	0.0000006	1666666.6667
89	0.01	0.001	240000000.0	0.0001	0.0000005	2000000.0000
90	0.01	0.001	300000000.0	0.0001	0.0000004	2500000.0000
91	0.01	0.001	400000000.0	0.0001	0.0000003	3333333.3333
92	0.01	0.001	600000000.0	0.0001	0.0000002	5000000.0000
93	0.01	0.001	800000000.0	0.0001	0.00000015	6666666.6667
94	0.01	0.001	1000000000.0	0.0001	0.00000012	8333333.3333
95	0.01	0.001	1200000000.0	0.0001	0.0000001	10000000.0000
96	0.01	0.001	1400000000.0	0.0001	0.00000009	11111111.1111
97	0.01	0.001	1600000000.0	0.0001	0.00000008	12500000.0000
98	0.01	0.001	1800000000.0	0.0001	0.00000007	14285714.2857
99	0.01	0.001	2000000000.0	0.0001	0.00000006	16666666.6667
100	0.01	0.001	2400000000.0	0.0001	0.00000005	20000000.0000

Department of Chemistry
 University of Illinois at Urbana-Champaign
 Champaign, Illinois 61824